

WV State Resiliency Office

Mission:

1. To improve the capacity of communities and regions to absorb and recover from external events, such as natural disasters and economic trends.
2. Serve as the state coordinated Resource Hub to engage the federal, state, and local partners (technical assistance and funding) needed to develop and implement economic resiliency plans, initiatives, and specific projects needed for long-term sustainable economic diversification in the entire state.

Goals:

1. Work with identified and new federal partners to secure funds for disaster recovery and economic resilience and diversification.
 - Manage and administer federal funds and initiatives awarded for disaster recovery and economic resilience and diversification
 - Develop program guidelines, forms, and technical assistance materials for available funds in accordance with federal regulations and guidelines
 - Provide technical assistance to applicants as needed
 - Serve as a funding identification Hub by researching and staying current with federal and other funding opportunities for community and economic development, with special focus on resilience and diversification
 - Work with Regional Planning and Development Councils to establish an information network to distribute funding opportunities in a timely manner and assist with technical assistance as needed.
2. Establish and facilitate regular communication between federal, state, local and private sector agencies and organizations to further disaster recovery and economic resilience and diversification
 - Identify relevant federal, state, local, private, and nonprofit stakeholders in community resiliency and establish ongoing and regular structure of meetings, list serve, and other regular forms of communication
 - Relevant stakeholders include:
 - Regional Planning and Development Councils
 - WV Floodplains Management Association
 - WV DEP
 - WV DEP Abandoned Mine Lands
 - WV DEP Stream Partners
 - WV Division of Homeland Security
 - WV Conservation Agency
 - WV National Guard
 - WV Division of Highways
 - WV VOAD
 - WVU Land Use and Sustainability Law Clinic
 - WV Association of Counties
 - WV County Commission Association

HB 2935 – Relating to State Flood Protection Planning

Overview:

- Establishing a Joint Legislative Committee on Flooding
- Establishing the Resiliency and Flood Protection Planning Act
- Creating the State Resiliency Office within WVDO
- Establishing a State Resiliency Office Board

Joint Committee on Flooding:

- Senate Members:
 - Ed Gaunch, Co-Chair, Kanawha-R
 - Craig Blair, Berkeley-R
 - Glenn Jeffries, Putnam-D
 - Ronald Miller, Greenbrier-D
 - Chandler Swope, Mercer-R
- House Members:
 - Roger Hanshaw, Co-Chair, Clay-R
 - George "Boogie" Ambler, Greenbrier-R
 - Kayla Kessinger, Fayette-R
 - Stephen Baldwin, Greenbrier-D
 - Dana Lynch, Webster-D

State Resiliency Board:

- Secretary of Department of Commerce, or designee – Secretary Woody Thrasher
- Director of Division of Natural Resources, or designee – Danny Bennett, designee
- Secretary of Department of Environmental Protection, or designee – Rusty Joins, designee
- Executive Director of State Conservation Agency, or designee – Director Brian Farkas
- Secretary of Department of Military Affairs and Public Safety, or designee – Secretary Jeff Sandy
- Secretary of Department of Transportation, or designee – Secretary Tom Smith
- Adjutant General of the WV National Guard, or designee – General James Hoyer
- Director of Homeland Security and Emergency Management, or designee - Jimmy Gianato

Requirements:

- Secretary of Commerce serves as Chair
- Board must meet no less than once each quarter
- Decisions shall be decided by majority vote
- Chair must provide adequate staff from their office
- Chair shall report, at minimum quarterly, to the Joint Legislative Committee on Flooding, activities of the Board to help develop legislative recommendations
- Chair shall submit an annual report to the committee by Dec. 31 of each year, along with recommended legislation, budget requests, and summary of board activities of previous year

Responsibility of State Resiliency Office/Authority of Board:

- Serve as coordinator of all economic and community resiliency planning and implementation efforts
- Annually review the flood protection plan and update no less than biannually
- Recommend legislation to reduce or mitigate flood damage
- Catalog, maintain, and monitor a listing of current and proposed capital expenditures to reduce or mitigate flood damage or other resiliency efforts
- Coordinate planning of flood projects with federal agencies
- Improve professional management of flood plains
- Provide education and outreach on flooding issues to our citizens
- Establish a single web site integrating all agency flood information
- Monitor federal funds and initiatives that become available for disaster recovery and economic and community resiliency
- Pursue additional funds and resources to assist not only with long-term recovery efforts but also long-term community and state-wide resiliency efforts
- Coordinate, integrate and expand planning efforts in the state for hazard mitigation, long-term disaster recovery, and economic diversification
- Coordinate long-term disaster recovery efforts in response to disasters as they occur
- Establish and facilitate regular communication between federal, state, local, and private sector agencies and organizations to further economic and disaster resilience

State Resiliency Board

Meeting Minutes

Monday, October 16th 2017

A meeting of the State Resiliency Office Board was held at 9:00am on Monday, October 16th, 2017 at the West Virginia Advancement and Development Office in Charleston, West Virginia

The following board members were present:

- Director Jimmy Gianato, West Virginia Division of Homeland Security and Emergency Management
- Director Stephen McDaniel, West Virginia Division of Natural Resources
- Jeff Wood, Designee for General James Hoyer, West Virginia National Guard
- Norman Bailey, Chief of Staff West Virginia Department of Agriculture
- Director Brian Farkas, West Virginia State Conservation Agency
- Secretary Austin Caperton, West Virginia Department of Environmental Protection
- Director of Community Advancement and Development Mary Jo Thompson, Designee for Secretary Thrasher, Department of Commerce

The following council members were absent:

- Secretary Jeff Sandy, West Virginia Department of Military Affairs and Public Safety
- Secretary Thomas Smith, West Virginia Department of Transportation

Others present:

- Deputy Director Russell Tarry, West Virginia Community Advancement and Development
- Jennifer Ferrell, West Virginia Community Advancement and Development
- Hannah Kessler, State Resiliency Office, West Virginia Community Advancement and Development
- Ken Ward, Charleston Gazette-Mail

The meeting was called to order by Director Mary Jo Thompson: Director Thompson welcomed the board and introduced her staff present.

Director Thompson spoke of the vision behind and the steps taken to revive House Bill 2935, which created the SRO Board, Office, and Legislative Committee on Flooding. She also spoke of the responsibility that comes from this legislative mandate to recovery this state and make it resilient.

Action items discussed were:

- Creation of a special committee, with Brian Farkas WV Conservation Agency as head.
- The reminder that this committee will report quarterly
- A request for each agency to create point person for future needs and meetings

Director Thompson encouraged all members to continue collaboration between state agencies, as well as federal and private sectors. She said if we are looking to make long term changes in resiliency we all must work together to do so. She is going to suggest including West Virginia Department of Agriculture into the State Resiliency Board through HB 2935.

There will be a Recovery and Alliance Session on November 7th, as the Development Office works with FEMA to push information out to agencies involved. This will be a large collaboration on many levels for the sake of disaster relief, recovery, and resiliency.

Director Jimmy Gianato, West Virginia Division of Homeland Security and Emergency Management mentioned that this disaster brought in more financial support than anything he has ever seen. He also encouraged the group that one of their main functions is to collaborate on resource allocation to maximize these funds while not duplicating services.

Director Thompson agreed that West Virginia is on the map for recovery, and the county is looking at the way we spend this money.

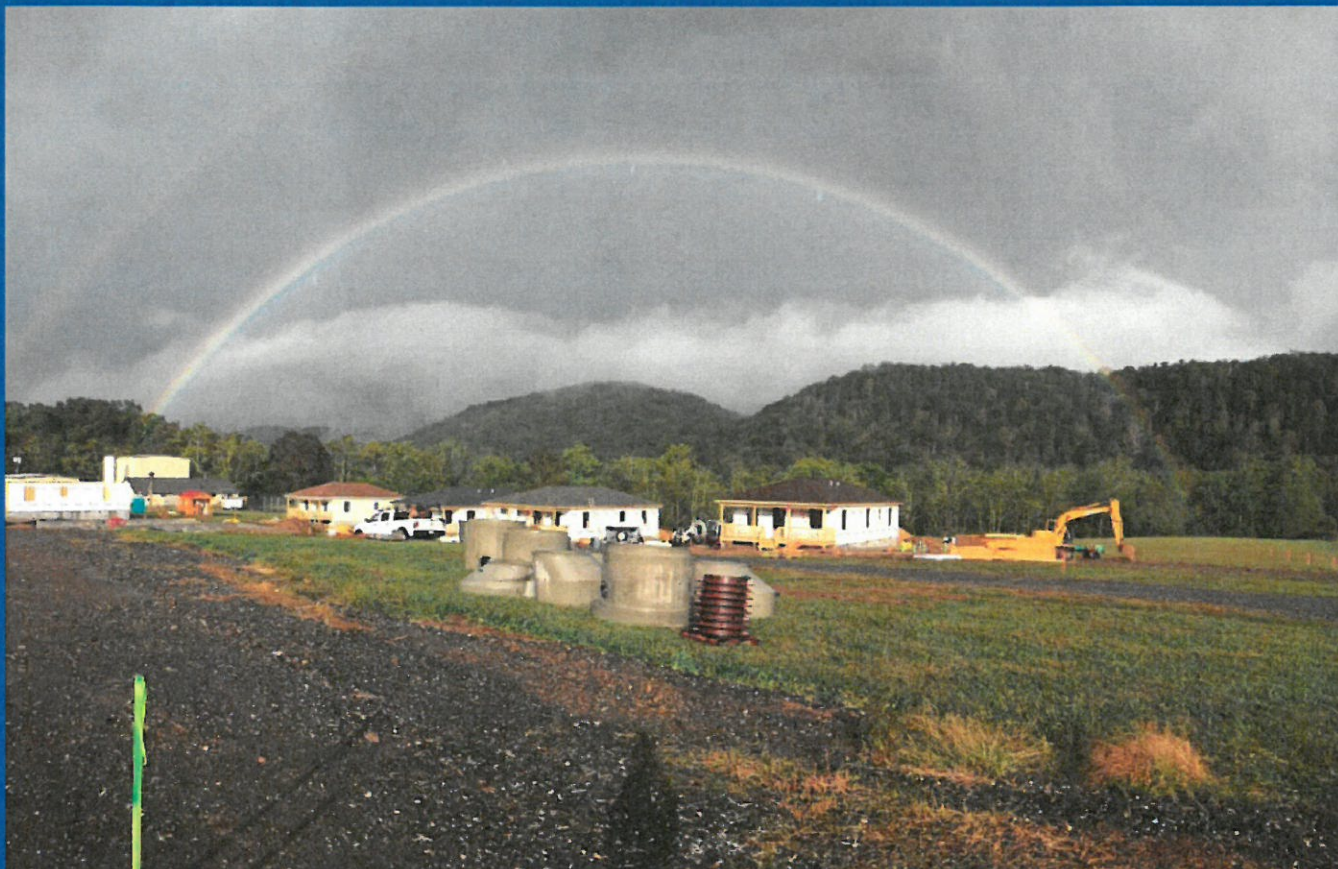
Director Gianato then explained that the disaster of 2017 was isolated to 4 Counties in the northern part of the state. These included Wetzel, Marion, Harrison and Marshall. This flood was not to the extent of the 2016 flooding, but made sure to mention that when you are the one affected it becomes very relevant to you personally. He also applauded private sector donors, and philanthropic groups for the building of (estimated) 1,000 homes since the June 2016 floods.

Director Thompson then requested that Director Brian Farkas speak about the background of HB 2935, and previous Legislative action. Director Farkas then explained a plan created in 2004-2005 to update flood plans, and then again, a 2007 effort by the legislature to enact the same plan, passing in senate but not in the house. Then after the floods of 2016 Speaker Armstead revived this same bill, finally passing HB 2935 that has been talked about for more than a decade. Director Thompson and Director Farkas both see this as a huge success to finally get this into law.

Moving forward, Director Thompson explained that the SRO Board will need to report to Joint Legislative Committee on Flooding quarterly, as mandated by HB 2935. The State Resiliency Office will take the lead on this reporting with support from the board.

All members of the board were invited to attend the November 7th Recovery Session with more details being passed on as they arrive.

A motion was made by Directory McDaniel and seconded by Secretary Caperton, all in favor and none opposed and the SRO Board meeting was adjourned



West Virginia Resiliency Office

Establishment Guide
and Best Strategies
October 16, 2017



FEMA



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Overview / Summary of Recommendations

The purpose of this guide is to support the West Virginia Department of Commerce's Development Office in developing and implementing the West Virginia State Resiliency Office (SRO). The sections of this document include recommended actions for implementation, including examples and best practices from similar efforts throughout the country. The recommendations range in terms of applicability. Some will need to be applied immediately to get the office stood up, while others could be long term goals. It is recommended that the SRO take a phased approach to implementation based upon the capacity and priorities of the state and office.

West Virginia is in a unique position to make resiliency a priority and change the paradigm for how decisions are made statewide. The SRO and resiliency in general must be fully engrained in the state, with decisions being made through the lens of resiliency. This guide serves as a starting point to get the department up and functioning. It is also the first draft of an evolving document. Pertinent document references will be provided in the future, and the IRC staff is willing to provide expanded research in areas that are a priority for the state. It will then be up to the SRO and state leadership to tailor the office to fit current and future needs of the state.

A brief overview of each section and its intended use follows:

Section 1: Resiliency Framework

This section: 1) outlines seven steps to develop a statewide resiliency framework, which can guide the state in how it addresses the shocks and stresses communities face; 2) empowers action to reduce vulnerability; and, 3) improves adaptability; and builds social capital in the face of hazards and changing conditions.

Recommendations: Develop a comprehensive Resiliency Framework that considers the state's social, physical, environmental and economic sectors for the state through a process that engages key stakeholders from across the entire state. The Framework should consist of at least seven steps which outline a path to address the challenges West Virginia communities face, empowering action to reduce vulnerability, improve adaptability, and build social capital in the face of hazards and changing conditions. Specific recommendations for each step are included in Section 2 of this guide.

Section 2: Staffing Needs, Roles, and Responsibilities

Here are considerations for how the state could set up the SRO staff structure, as well as the roles and responsibilities of the SRO as a whole. Also included is a list of suggested pre-disaster and post disaster activities for SRO staff.

Recommendations: As the SRO is established, support recruitment and retention of three core SRO staff: one director, and two project coordinators or specialists. As responsibilities increase and/or declared disasters arise, more dedicated involvement from SRO staff or additional personnel will be required to assist recovery in the impacted areas.

Beyond what is outlined in the legislation, the overall roles and activities of the SRO should include the following: 1) Provide ongoing training opportunities; 2) Promote forms of planning; 3) Ensure investments decrease vulnerability; 4) Develop a resilience data resource; 5) Assess at-risk assets; 6) Develop technical assistance and tools; 7) Identify or establish funding opportunities; and 8) Promote FEMA's community rating system.

Section 3: Organizational Chart

This section provides a recommended organizational structure for the SRO within the state government structure, including direct lines of authority and collaborative relationships with specific resiliency partners across the entire state.

Recommendations: The SRO is well positioned within the Department of Commerce's Development Office. It is key for the office to have latitude to reach across state departments and sectors to communicate and provide expertise for resiliency related items. This also includes engagement, communication and consultation across all sectors of society.

Section 4: Coordination with Partners

Here, the critical relationships, partners, and agencies the SRO should coordinate with in order to be most effective are outlined. The benefits of collaborations and methods of communication are also detailed.

Recommendations:

1. Develop and maintain open and effective communication and collaboration with all partners – local, state, and federal government agencies, local organizations, non-profits, non-governmental organizations (NGOs) – volunteer, and others. It is critical to not only follow the direct line of authority indicated in the organizational chart above, but to maintain working relationships with state and federal partners.
2. Work with existing processes to develop and maintain communication with all partners. Schedule regular, recurring meetings or conference calls to provide a venue for the SRO and partners to provide updates and ask questions.
3. Coordinate an annual summit, or other event in which resiliency training and planning activities can be provided to benefit all parties. Look at the possibility of leveraging existing events, such as the annual RPDC conference for the purpose of education and training.
4. Develop working groups or other committees as specific circumstances or opportunities present themselves.
5. Consider creating an SRO website or SharePoint site that all partners can access in order to share project updates, funding opportunities, and maintain a central repository for resiliency planning resources.

Section 5: Specific Factors for West Virginia Resiliency

This discussion encompasses the intertwined recovery and resiliency issues that impact the state as a whole, along with recommendations on how the SRO may lead or guide initiatives to address these issues. Implementation for almost all of the proposed solutions will require coordination across the entire state.

Recommendations: Include resiliency planning and functions in all efforts by addressing identified cross-cutting issues throughout West Virginia: 1) Communications and coordination; 2) Capacity; 3) Community Engagement; 4) Affordable Housing; 5) Broadband; 6) GIS Data; and 7) Economic Development. Specific recommendations for each cross-cutting issue are included in Section 8 of this guide.

Section 6: Monitoring and Measuring Progress

Methods by which the SRO can develop metrics to measure the success of their efforts, along with a scorecard for implementation of resiliency on a statewide level are presented.

Recommendations: Identify a set of performance metrics that can be used to independently evaluate the success of state-funded projects and identify benchmarks for success. Also, conduct an overall assessment of the implementation and application of resiliency across all state departments.

Section 7: Resources and Funding to Support Resiliency

Resources and funding opportunities are identified that may be leveraged by state and local entities to incorporate resiliency measures. This list is far from comprehensive but it provides the most common and consistent Federal resources that other states have identified and continually utilize.

Recommendations: Use state and federal resources to sustain the activities of the WVRO and all necessary staff, and work to include operational and staffing funds within each annual West Virginia State budget. Communicate available resources to other state agencies and local governments to support implementation of resiliency measures.

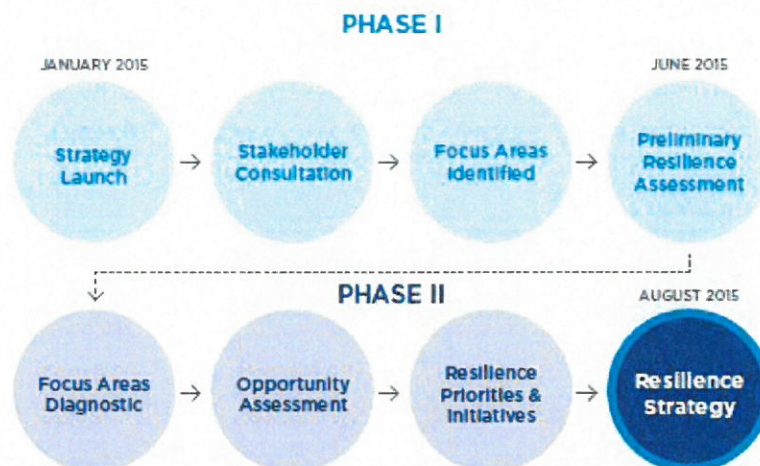
1. Resiliency Office Framework

A resiliency framework provides a state or community with a clearly defined path to address the shocks and stresses they face, empowering action to reduce vulnerability, improve adaptability, and build social capital in the face of hazards and changing conditions. The framework is not a standalone plan like a hazard mitigation plan or a comprehensive plan. Rather, a resiliency framework provides a collaborative forum to assess current risks, plans and practices, and to build resiliency into policies, actions and investments across multiple sectors and state entities.

A resiliency framework is meant to build on existing plans, policies and investments through an assessment of existing conditions in the community. Resiliency frameworks consider how the reduction of vulnerability to both shocks and stresses can integrate into day-to-day activities and long-term vision and goals. Through extensive stakeholder and public engagement, the framework planning team should also develop consensus about the state's vision and goals for resiliency, and use community input to guide development of strategies and ideas that help fulfill the vision and meet the established goals.

Inclusion of a broad range of stakeholders can help identify the resiliency-related strengths and challenges across the state. One mechanism for achieving this goal is to hold visioning and strategic planning meetings. Another option could be to conduct surveys, interviews, focus groups and small-group engagement sessions. Stakeholder engagement throughout this process will lead to meaningful and substantive input, as well as lay the foundation for implementation. Critical components of a resiliency framework include:

- A common understanding of resiliency and how it relates to state values;
- An analysis of baseline existing conditions in the state and the shocks and stresses that it faces;
- An inclusive engagement process that informs the public about the importance of resiliency, and informs the planning team as it develops the framework;
- A vision for the state that is supported by forward-looking goals, actionable strategies, and projects for action; and
- An articulated roadmap for ongoing coordination and action.



Resiliency Framework Process

Step 1: Establishing Working Groups

One of the first and most important steps for development of a resiliency framework is to identify critical stakeholders to engage throughout the process. Questions to ask for establishing the team should include: Who should lead the process? Who needs to be at the table? What are the most effective ways to engage stakeholders and the public? Who will take ownership for implementation? How can the process be transparent? It is important that the team represent a wide variety of stakeholders within the state.

Recommendation: Use the board members identified in the SRO legislation to compose one of the multiple initial working group. After the first few meetings, assess any weaknesses or needs to ensure the group is comprehensive and inclusive. Ensure that the board members and/or their designee understand the time requirements that must be devoted to the framework and necessary technical proficiencies. When you have a compiled list of the core group of people immediately involved, start a second list of all the people, groups or agencies that your committees and subcommittees should communicate with in order to be successful. Think about the connections you have and the ones that you need to be successful.

Step 2: Establish Executive Committee

Developing a resiliency framework relies on strong leadership to identify and convene the right team, establish goals, set timelines, and synthesize input from the resiliency framework team and the public. The leadership group will ultimately drive implementation and coordinate maintenance and updating of the framework. It is helpful to the process if leadership has prior experience facilitating a planning or stakeholder engagement process, and the ability to work constructively with all participants to understand and integrate state values into the framework development process. The formation of an executive committee helps direct the planning process

and ensures a broad spectrum of state interests are represented. Additionally, it is important to establish ownership of the plan to ensure it is a living document with identified, pre-scheduled maintenance activities.

Recommendation: Create an executive committee of dedicated appointees that have the time and skillset required to see the project to fruition. Solicit the use of professional facilitation to guide the formal process. Let the steering committee design the framework with input from other members. Once areas of resiliency are identified, create working groups for each function that can report back to the entire board on a regular basis. Find a way to include the public and all geographic areas of the state. The sector working groups should be composed of both board members and subject matter experts to ensure a quality end product.

Step 3: Establish a Resiliency Vision Statement

The State's vision statement defines what the State wants to become and establishes the means to get there. It should signal the direction for the state's resiliency future, provide a foundation for strategic planning efforts, and in no uncertain terms, outline what the state represents.

Recommendation: Identify the common values of West Virginia and what it means to be a part of the state. Establish what the state is known for, what makes it unique, and more importantly, what would you like the state to be known for in terms of resiliency. Benchmark vision statements that the state has established in other planning documents and determine what time period the framework should address (10, 20, 30 years). These elements should be closely linked to the existing conditions, and shocks and stresses of the state.

VISION STATEMENT: OREGON EXAMPLE

"Oregon citizens will not only be protected from life-threatening physical harm, but because of risk reduction measures and pre-disaster planning, communities will recover more quickly and with less continuing vulnerability following a cascadia subduction zone earthquake and tsunami."

Step 4: Establish Guiding Principles

Guiding principles are themes or ideas that reflect the values important to the state, and should be expected outcomes of all resiliency activities. Establishing guiding principles early on in the resiliency framework development process can help define and articulate what the state hopes to achieve through the resiliency framework.

Recommendation: Once principles are established, make sure to articulate them at the very beginning of each resiliency planning workshop or meeting to provide context for how goals and strategies should be developed. Also, keep the principles in front of committees as a continual reminder of their importance. The principles should be included in every group's plans and documents, making it clear that they are for the state as a whole.

GUIDING PRINCIPLES: VERMONT EXAMPLE

“A resilient Vermont is better prepared for and able to more effectively manage and bounce back from natural disasters and climate-related shocks, and the risks they pose to our economy, environment, and social well-being. A resilient Vermont focuses on both proactively reducing our vulnerabilities and improving our response and recovery, to ensure that we are continually strengthening our resilience. We must be resilient at every level – from individual residents, households, and businesses and neighborhoods, to the entire community and state. There is a shared sense of responsibility for resilience at every level and across the public, private, and nonprofit sectors.”

GUIDING PRINCIPLES: STATE OF WASHINGTON EXAMPLE

“Life Safety and Human Health: Residents of the state of Washington should not suffer life-threatening injuries from earthquake-induced damage or develop serious illness from lack of emergency medical care after an earthquake. This includes enforcing and updating building codes, eliminating non-structural hazards, and ensuring continuity of emergency health care.

“Property Protection: Public and private property within the state of Washington should be built, retrofitted, or rebuilt to minimize earthquake-induced damage. This includes proper design and construction of both structural and non-structural elements.

“Economic Security: Residents and businesses within the state of Washington should have access to income opportunities to meet basic needs before and soon after an earthquake. This includes sufficient employment opportunities, market access, distribution capacity, and supplier access.

“Environmental Quality: The natural resources and ecosystems of Washington State should be managed in such a way as to minimize earthquake-induced damage. This includes the use of proper growth management, accident response capacity, and industrial safety measures.

“Community Continuity: All communities within the state of Washington should have the capacity to maintain their social networks and livelihoods after an earthquake disaster. This includes prevention of social-network disruption, social discrimination, and community bias.”

Step 5: Categorize Sectors of Resilience

Stakeholders need to consider state resiliency in sectors or focus areas and provide strategies to address potential shocks and stresses. Each sector represents a fundamental building block that supports the state's overall resiliency. Through this process, stakeholders should be asked the following questions:

1. What does resiliency mean for the sector? What does this look like in action?
2. What are the shocks and stresses most often associated with this sector?
3. What potential strategies could enhance resiliency in this sector?

Recommendation: Identify 4-8 sectors where West Virginia will focus its resiliency efforts. Sector-specific committees should be asked to develop a vision for resiliency for how their sector should address resiliency, examine impacts from acute shocks, and identify chronic stresses that may lead to an acute shock, affect the state's ability to rebound quickly, or impact daily quality of life. These sectors will serve as primary drivers around which all actions will be organized and assessed. In effect, they will help to translate the commitments made in the vision and principles, into the desired results and actions the state will undertake to fulfill them.

SECTORS OF RESILIENCE: COLORADO & OREGON EXAMPLES

Colorado: Community, Economic, Health and Social, Housing, Infrastructure, and Watersheds and Natural Resources.

Oregon: Business and Workforce Continuity, Coastal Communities, Critical and Essential Buildings, Transportation, Energy, Information and Communications and Water and Wastewater Systems

Step 6: Identify Strengths and Challenges to Sectors

Every state has unique conditions that can strengthen or challenge the development of resiliency. Additionally, shocks and stresses vary from one state to the next and play a key role in identifying the objectives of the resiliency planning process. The working group members and additional stakeholders should be best suited to identify and analyze the major shocks and stresses in West Virginia.

Shocks & Stresses

Acute shocks are sudden, sharp events that threaten the well-being of the state. The frequency and intensity of a particular shock can trigger additional shocks (such as a powerful flood triggering major infrastructure failure), and the scale of the impacts will vary widely for an event depending on a variety of factors and conditions. Stresses are conditions or pressures that grow more slowly, eroding development progress over time. Stresses should not be confused with broader systemic constraints (e.g., poverty and weak governance) that also inhibit people's well-being, but are a more permanent feature of the development context.

Recommendation: Have each working group member compose a list of stakeholders and subject matter experts. Hold a series of workshops or separate meetings where attendees are asked to examine the capacity and resilience of their sectors in more detail. The members of the sector groups should use their collective expertise to:

- Evaluate the current condition of the state's sector, systems and infrastructure to predict how they will perform during a disaster and how quickly they can be restored if disrupted or damaged;
- Develop targets for the desired levels of performance;
- Develop target timeframes for the restoration of services and functions following a disaster;
- Define the vulnerabilities and key interdependencies of each sector. (For example, when considered alone, water might be restored within a day, but its vulnerability is that it depends on electricity, which could take longer than a day.); and
- Prepare recommendations for statewide action to achieve desired targets.

IDENTIFY STRENGTHS & CHALLENGES: COLORADO EXAMPLE

Shocks: Numerous fires and floods in recent years; cyber-attacks and other technology crimes

Stresses: Aging infrastructure; increasing population; energy generation and distribution systems reaching capacity; climate, including Colorado's severe freeze-and-thaw cycles; changing climate trends.

Problems: Communities across the state need asset risk assessments and management tools to understand the threats and vulnerabilities of infrastructure they control as well as how to prioritize opportunities to reduce vulnerabilities; There is no common definition of "resiliency" and inconsistent design standards; Funding limitations do not allow criteria for project evaluation or to prioritize/implement improvements; and Infrastructure is not seen as interconnected between jurisdictions and there are no incentives to do so.

**Colorado produced a Shocks and Stresses Worksheet," which will help to identify applicable shocks and stresses, the interdependencies between shocks and stresses that magnify vulnerability, and to understand how those vulnerabilities affect the community's ability to adapt to changing conditions or recover after an event.*

Step 7: Establish Goals, Strategies, and Recommendations

The final step is to assemble the recommendations that the committees or work groups have prepared, based on their meetings/workshops for each sector and derive from them a set of goals, strategies and recommendations that, if implemented, would lower risk, speed recovery, and have the greatest impact on the resilience of the state as a whole. They are intended to serve as tools for shaping the direction of planning, mitigation, and response, as well as the further development of policies that will improve statewide resilience.

Resiliency Goals

Goals establish observable and measurable end results that will help shape the overall vision the state envisions. Colorado's Visioning and Goals Worksheet can provide guidance on the creation of a community vision and goals.

Strategies & Recommendations:

At all stages of the resilience-building process, focus should remain on taking an integrated approach. An integrated approach looks at systems and linkages—specifically, it requires thinking about relationships between state-level departments, between the government and residents, between the public sector and academia, between the public and private sectors and between problems. Strategies form plans and methods to reach the state's specified goals and align with the overall vision. Strategies are a good way to link the resiliency sectors to recommendations and project ideas. Creating implementable strategies may require revisions and further stakeholder engagement.

Ultimately, there must be stakeholder consensus for recommendations, which should be derived from the recommendations that each work group develops and presents to the full board for inclusive decision making. The multiple working groups should be tasked with developing a working group report focusing on no more than 3-5 substantive action items. The action items must be achievable under current conditions.

Each recommendation and strategy must be tied to a method to monitor and measure progress. It is key that the SRO office is cognizant of development being made, while also looking to meet clearly identified targets. The progress should be tracked by the office on a continual basis and documented via the production of quarterly and annual reports. The working groups should establish the strategies and recommendations, and the SRO office should measure progress and report to the full board.

RESILIENCY GOALS: COLORADO EXAMPLE

1. **RISK:** Reduce risk to Colorado communities.
2. **PLANNING:** Enhance resiliency planning capacity in Colorado communities.
3. **POLICY:** Develop, align, and streamline policies to empower resiliency.
4. **CULTURE:** Create a culture that fosters resiliency, instilling an inherent sense of responsibility among all.
5. **INVESTMENT:** Ingrain resiliency into investments in Colorado.

RESILIENCY GOALS: VIRGINIA EXAMPLE

1. **INFORM** diverse leaders from government, business, and the community about natural, climate-induced and man-made risks and vulnerabilities;
2. **EDUCATE** key groups about the models for community resiliency planning;
3. **ACTIVATE** Virginia communities by providing tools to engage in resiliency planning.

RESILIENCY GOALS: BOULDER, COLO., EXAMPLE

1. **CONNECT AND PREPARE:** Prepare all segments of the community for uncertainty and disruption by encouraging community preparedness, creating a culture of risk awareness and personalizing resilience.
2. **PARTNER AND INNOVATE:** Capitalize on the collective problem-solving and creativity of our community by leveraging advances in data, research and observations to address emerging resilience challenges.
3. **TRANSFORM AND INTEGRATE:** Embed resilience into city operations and systems by transforming our approach to community resilience.

2. Staffing Needs, Roles and Responsibilities

House Bill 2935 identifies and tasks the West Virginia State Resiliency Office (SRO) with numerous roles related to the planning and implementation of functions that make the state more resilient to natural disasters. Beyond the authority granted in the legislation, there are additional roles that the SRO must champion in order for the office to accomplish its mission. These functions will give the office sustained momentum and ensure that the state is better prepared for the next disaster.

The SRO must work to improve the capacity of communities and regions to absorb and recover from external events, such as natural disasters and economic trends. It is also to serve as the coordinated resource hub to engage federal, state, and local partners essential to incorporating resiliency into economic development plans, initiatives, and specific projects needed for long-term sustainable economic diversification in the entire state. The following section summarizes the key roles that resiliency offices around the country employ to make resiliency an ongoing priority and how they staff those offices.

Staffing Needs

In order to function under the office's mission, appropriate staffing and delegation of responsibilities is key. As the SRO develops, the initial optimal number of staff is three: one director, and two project coordinators or specialists. As responsibilities increase and/or declared disasters require regular, dedicated involvement from SRO staff, staffing needs will likely increase.

The role of the Director of the West Virginia State Resilience Office is to lead the creation of a cohesive resilience strategy for the state, and to plan, coordinate, and direct resilience efforts across state departments. The director will guide the creation of a resilience vision and strategy document, and work with local, state and federal partners and with external stakeholders to deliver key initiatives that will expand and complement the state's ongoing resilience work.

The office should also support the employment of project coordinators or similar positions to organize, coordinate and advance resilience and recovery processes at the local level. They should be responsible for professional-level planning, implementation and support of disaster recovery goals, objectives and strategies following a disaster. Their primary role is to manage and coordinate support of local efforts to redevelop and build community. In addition, the individuals occupying the positions should be able to represent and speak on behalf of SRO leadership. The position should work to integrate multiple stakeholders and efforts on behalf of local resiliency and recovery efforts.

Roles and Responsibilities

Provide Ongoing Training Opportunities

The SRO should establish a sustainable and permanent training program for key stakeholders, in partnership with communities, a variety of professionals from the social and economic sector and specialized local and national institutions. Work with local and federal resources, and focus on training priority target groups such as: municipal departments and emergency management

authorities; fire and rescue services; medical emergency teams and law enforcement personnel; economic development specialists; building code inspectors; subject matter experts; the private sector; community leaders; and educators. There are many opportunities to conduct or participate in training. Listed below are some of the major avenues to allow the state and communities to expand its knowledge and expertise in disaster recovery and resilience.

- Develop training using Homeland Security grants/funds
- National Incident Management System (NIMS)/Incident Command System (ICS) training protocols
- Independent Study Program through the FEMA Emergency Management Institute (EMI)
- Webinars or other web based training activities
- Workshops or training in conjunction with state or Regional Professional Development Centers (RPDCs).

Promote Planning

Hazard Mitigation

In compliance with federal planning laws, regulations and guidance, communities must prepare or adopt hazard mitigation plans, which are approved by FEMA in order to be eligible to receive certain federal funding for mitigation and other non-emergency disaster projects. Hazard mitigation plans are documents that aim to identify, assess and reduce the long-term risk to life and property from a range of natural hazards. They must be updated every five years, and can be stand-alone documents or integrated in a community's local comprehensive plan. Counties can prepare hazard mitigation plans on their own, with other jurisdictions within the county or with other counties as part of a multi-county region. In West Virginia, these plans are prepared at the regional level by RPDCs (with the exception of Jefferson County).

Pre-Disaster Planning

The ability of a community to successfully manage the recovery process begins with its efforts in pre-disaster preparedness, mitigation, and recovery capacity building. These efforts result in resilient communities with an improved ability to withstand, respond to, and recover from disasters. Pre-disaster recovery planning promotes a process in which the whole community fully engages with and considers the needs and resources of all its members. The community will provide leadership in developing recovery priorities and activities that are realistic, well planned, and clearly communicated. Effective pre-disaster planning is an important process that allows a comprehensive and integrated understanding of community objectives. Pre-disaster planning also connects community plans to guide post-disaster decisions and investments. The SRO should work with WVDHSEM and other key stakeholders to prepare a state level pre-disaster recovery plans (PDRP) while also a concentrated effort to support and encourage the development of local and regional PDRPs.

Comprehensive Planning

Resiliency concepts can be incorporated into comprehensive plans, either during full updates or by amendment. Also known as master plans or general plans, comprehensive plans lay out the long-term vision and values for a community, and outline goals and strategies for future development and growth. Comprehensive plans address a variety of issues ranging from land use

and development, housing, economic development, transportation and infrastructure, and protection of existing natural areas.

Education and Engagement

Resiliency is a topic that will require an ongoing sharing of best practices and infusion of new knowledge as markets, climate, hazards and solutions continue to evolve. The state should be committed to making the SRO a central location for posting information and engaging community feedback. More extensive education programs should also be developed in partnership with learning institutions and professional associations that have the capacity and infrastructure to create platforms for training and knowledge exchange. Lessons learned, case studies, and best practice examples should be gathered, documented and shared through training, presentations, and online forums to expand the understanding of resiliency and the application of solutions in planning, policy, and practice. An ongoing dialog with the public through forums, online tools, and advisory panels should also be utilized to gather on-the-ground experiences and the real-life issues facing residents that will be continuously factored into resiliency strategies and solutions education.

Ensure Investments Decrease Vulnerabilities

The SRO should consult all community development, housing, environmental, and infrastructure programs when applicable to assess investment plans based on current and future risks. Additionally, the SRO should provide guidance to pertinent state departments or entities regarding investing state resources in more resilient ways. The goal of this action is to help state agencies understand where risks overlap with planned investments. At a minimum, the SRO should closely examine plans for transportation, stormwater management, economic development, housing and community development, conservation and land use, water infrastructure, health and social services, and natural and cultural resources. This includes ensuring that post-disaster investments do not simply rebuild to the same pre-disaster standards when opportunities for enhanced resilience exist.

Develop a Resilience Data Resource

All of a state's concurrent resilience planning efforts should use the most complete and up-to-date data available. To facilitate this goal, the SRO should develop an online system that organizes all resilience data in one place and provides an interface that clearly explains what each data layer is showing. A centralized, user-friendly resilience database can serve to familiarize planners with key resilience metrics, encourage the use of data in planning processes, and ensure that all data resources are considered. This database should serve as the primary science-based tool for evaluating existing and planned investments, alongside the state's risk assessment.

Assess At-Risk Assets

The SRO should lead a review of at-risk assets. Assessments should compare, at a minimum, the cost of protecting the asset, the cost of relocating the asset, and the impact of losing or abandoning the asset. This review should be done in collaboration with relevant state agencies and local governments. Eventually, this process should include everything from privately owned properties such as businesses, churches, farmland, and residential communities, to state and city

owned facilities such as roads and bridges, police and fire stations, parks, libraries, schools, and government office buildings.

Develop Technical Assistance Tools and Capabilities

Capacity & Expertise

The state should build resilience expertise and capacity at the local level by providing technical assistance and relevant tools to communities. These should be focused on a few widely applicable economic development issues, such as land use planning, transportation planning, codes and permitting, or facility siting. Potential technical assistance could include trainings for local government staff or a circuit rider program where state staff provide on-going, direct assistance to local officials. Although the goal should be to deliver as much assistance as possible, time and staff limitations demand a process that prioritizes communities with low resilience planning capacity and high hazard risk. The state should consider developing and delivering technical assistance in partnership with RPDC's, regional universities and non-profits to increase efficiency and take advantage of existing in-state expertise.

Tools

In addition to policies, the SRO should provide access to best practice resources, such as: model ordinances, planning tools and guidance documents and resilience and recovery checklists for communities to emulate and implement. The EPA's Flood Resilience Checklist, which helps communities prepare for floods, is an example of the types of tools that could be provided. The state should develop a centralized online system to provide easy access to this information, a resource that could be especially useful to small urban or rural communities that lack internal planning staff and adequate connections to external expertise. The online system could also list opportunities to apply for technical assistance support from the state, federal government, foundations, and other resources. Non-profit organizations and local institutions can be valuable partners in producing these guides and toolkits.

Identify or Establish Funding Opportunities

Grant Opportunities

The SRO should be the clearinghouse for all funding opportunities to promote a more resilient state, gathering and disseminating information from federal and non-profit funding source, and then communicating with RPDC's and local governments regarding any opportunities. Technical assistance should also be provided to assist with the grant application development, project implementation and closeout process. The SRO should also work with state departments to incorporate resiliency into the criteria for grants, incentives and other funding opportunities.

Establish a State Resilience Fund

The state should develop a permanent fund to invest in resiliency projects, meet recovery needs in the aftermath of disasters, and assist communities with implementing local resilience measures. A resilience fund can provide flexible and immediate resources. For example, these funds could pay directly for resilience improvements to state infrastructure, serve as a match for available federal and local resources, provide grants to communities, or function as a state

revolving loan fund. In the aftermath of a disaster, these funds could be made available more quickly than federal funds, which often take an extended amount of time to deploy.

There are numerous ways states can build a fund, including committing a percentage of existing state infrastructure, economic development, or community development budgets to resilience projects in those areas. The state can also create special taxes or fees dedicated to resilience, such as real estate transfer fees and stormwater utility fees.

Promote FEMA's Community Rating System

The Community Rating System (CRS) is a voluntary incentive program that encourages communities to undertake floodplain management activities that go above and beyond the minimum National Flood Insurance Program requirements. Activities are organized under four main categories (Public Information, Mapping and Regulation, Flood Damage Reduction, and Warning and Response), and provide participating communities with discounts on flood insurance premium rates ranging from 5%-45%. Beyond the reduced insurance premiums for all residents in a CSR-designated community, participating in the CRS program can provide a number of other benefits, including improved public safety, enhanced environmental protection, reduced damage to property, free technical assistance for designing and implementing certain activities, and a better informed and prepared public.

Examples of SRO Activities (Steady State and Disaster Recovery)

Steady State Activities

1. Overseeing and facilitating implementation of the FEMA-4273-DR-WV Recovery Support Strategy (RSS). The RSS includes a number of issues, goals, objectives, strategies, and actions across four Recovery Support Functions (RSFs), which the state is encouraged to implement with the support of federal partners in order to advance statewide recovery and resilience.
2. Working with local, state and federal partners to secure funds for disaster recovery and economic resilience and diversification.
 - a. Manage and administer federal funds and initiatives awarded for disaster recovery and economic resilience and diversification.
 - b. Develop program guidelines, forms, and technical assistance materials for available funds in accordance with federal regulations and guidelines.
 - c. Provide technical assistance to applicants as needed.
 - d. Serve as a funding identification hub by researching and staying current with federal and other funding opportunities for community and economic development, with special focus on resilience and diversification.
 - e. Work with Regional Planning and Development Councils (RPDCs) and municipalities to establish an information network to distribute funding opportunities in a timely manner and assist with technical assistance as needed.

3. Establish and facilitate regular communication between federal, state, local and private sector agencies and organizations to further disaster recovery and economic resilience and diversification.
 - a. Identify relevant federal, state, local, private, and nonprofit stakeholders in community resiliency and establish ongoing and regular structure of meetings, list serve, and other regular forms of communication.
 - b. See “DoC SRO Mission and Goals 2-14-17” document for a list of identified relevant stakeholders.
4. Coordinate, integrate, and expand planning efforts in the state for hazard mitigation, long-term disaster recovery, and economic diversification.
 - a. Develop a database of counties and communities with existing comprehensive plans.
 - b. Work with RPDCs to incorporate economic resiliency into annual Comprehensive Economic Development Strategies.
 - c. Work with RPDCs to assess the status and implementation of hazard mitigation plans.
 - d. Work with WVU Land Use Law Clinic to strengthen and expand comprehensive planning efforts in counties and communities.
 - e. Work with relevant state agencies to update the statewide flood prevention plan.
 - f. Work with relevant state and local agencies to integrate hazard mitigation into existing plans using tools such as safe growth audits.
 - g. Integrate Land Use Master Plans developed by the Office of Coalfield Community Development into existing economic and community development planning.
 - h. Integrate fossil energy, renewable energy, and energy efficiency planning conducted by the Division of Energy into existing economic and community development planning.
5. Strengthen local capacity and initiatives that address hazard mitigation, long-term disaster recovery, and economic diversification.
 - a. Strengthen and expand local disaster preparedness, prevention, and response programs such as StormReady, Citizen Corps, and Community Emergency Response Teams.
 - b. Strengthen and expand the Community Rating System (CRS) in the state.
 - c. Work with RPDCs and municipalities to employ Local Disaster Recovery Managers (LDRMs), circuit riders or VISTAs to assist local governments.
 - d. Provide training opportunities to all stakeholders to enhance resiliency capabilities.

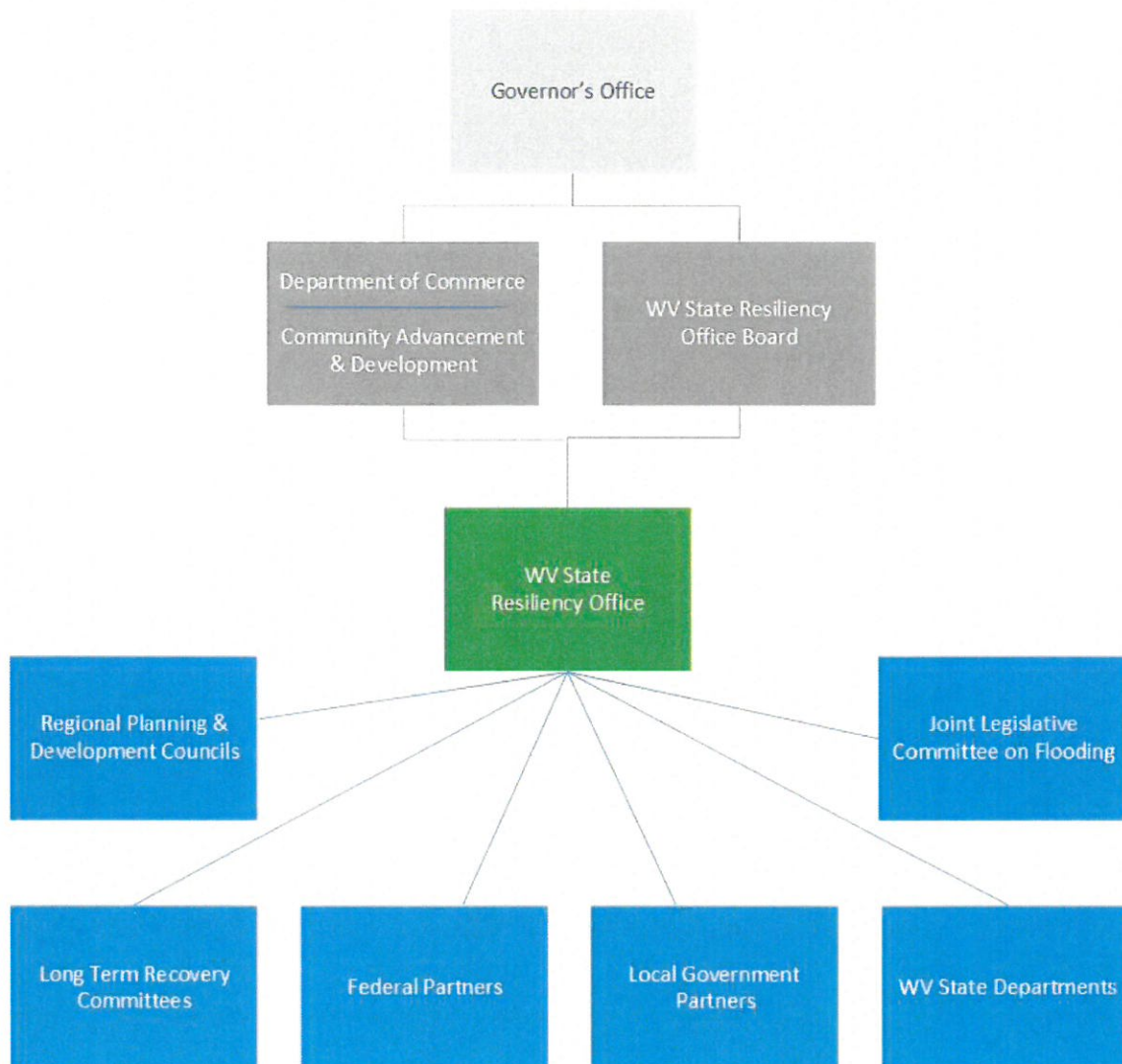
Disaster Recovery Activities

1. Coordinate long-term disaster recovery efforts in response to disasters as they occur.
 - a. Organize and implement long-term planning and recovery activities in response to specific disasters.
 - b. Organize and implement long-term planning for economic diversification of areas and regions dependent upon single-industry economies.

2. As needed, assign staff to represent the SRO and assist FEMA Interagency Recovery Coordination (IRC) staff at the FEMA West Virginia Recovery Office (WVRO).
 - a. It is critical for the state to participate in development of the Mission Scoping Assessment (MSA) and Recovery Support Strategy (RSS), as these documents outline recovery and resilience opportunities for the state, as well as potential technical and direct assistance from the federal government. Participation from the SRO in these processes will ensure relevant and effective actions for West Virginia.
3. Administer the HUD Community Development Block Grant-Disaster Recovery (CDBG-DR) funds to assist recovery efforts in impacted areas.
 - a. Identify unmet needs from the disaster and use CDBG-DR funds to address issues in the impacted areas.

3. Organizational Chart

The organizational chart below is an example of the position of the SRO within the structure of West Virginia state government. It will ultimately be up to the Department of Commerce and the Community Advancement and Development division to determine where the SRO fits in relation to other state agencies and divisions. Our recommendation is for the office to be connected to all partners that have a stake in recovery and resiliency. No one state agency should report directly to the SRO, but the office should be a consulting party anytime that a decision is being made that has a component of resiliency. This would include state investments, long-term planning and anything that can be tied to increasing resiliency. The SRO must change the mindset of decision makers in the state to ensure that resiliency is a key component in the process. That is why it is critical for the SRO to immediately gain traction and show value in the resources it can provide across all sectors of society.



4. Coordination with Partners

The success of the SRO depends entirely upon open and effective communication and collaboration with all partners – local, state, and federal government agencies, local organizations, non-profits, NGOs, volunteer, and others. It is critical to not only follow the direct line of authority indicated in the organizational chart in the previous section, but to maintain working relationships with state and federal partners. The West Virginia National Guard (WVNG), West Virginia Department of Homeland Security and Emergency Management (WVDHSEM), and the FEMA West Virginia Recovery Office (WVRO) have been involved in recovery efforts since the flooding events of 2016, and continue to work on projects and efforts that align with the purpose and scope of the SRO. These, and other partners identified in the SRO legislation should be viewed as consistent partners who can offer advisory and practical support.

The SRO will serve as a central hub for coordinating resilience efforts across state agencies, and the distribution of information re: project and funding opportunities to local governments and organizations. At its best, the SRO will coordinate recovery and resilience efforts, provide transparency, maintain a sense of urgency at the state level, advocate for recovery funding, and build partnerships across multi-faceted public and private organizations.

Maintaining an open, collaborative dialogue with all partners allows for a number of benefits:

1. All partners are aware of recovery and resilience activities occurring throughout the state, and can identify areas for collaboration and support;
2. Potential conflicts and duplication of effort are identified and corrected early;
3. Communication and participation from organizations such as Regional Planning and Development Councils (RPDCs), Long Term Recovery Committees (LTRCs) and volunteer groups provides awareness of successes, challenges, and needs within local communities;
4. All partners can discuss potential funding opportunities and identify programs in which they may combine efforts to meet needs of multiple communities;
5. Similarly, all partners can work together to develop a series of actions that communities can take to increase their chances of receiving resilience funding; and
6. All partners can work together to evaluate the economic benefits, cultural or historical significances, and social impacts of at-risk assets and consider all options to protect them from future hazards.

Recommendation:

1. The SRO should work with existing processes to develop and maintain communication with all partners.
2. Schedule regular, recurring meetings or conference calls that work for all partners. This will allow the SRO and partners to provide updates and ask questions.
3. An annual summit, or other venue in which resiliency training and planning activities can occur, would benefit all parties. Existing annual summits or workshops should be leveraged.
4. The development of working groups or other councils (some which may have been designated through the Resiliency Framework process) may be a consideration as special circumstances or opportunities present themselves.
5. Consider creating an SRO website or SharePoint site that all partners can access in order to share project updates, funding opportunities, and resiliency planning resources.

5. Specific Factors for West Virginia Resiliency

Communities throughout West Virginia face many of the same recovery and resiliency challenges. The SRO can serve not only as the central point of contact for information about addressing these challenges, but can be the driving force behind the initiatives to address each one. The WVRO IRC Team identified cross-cutting issues, each of which is listed below, along with recommendation on how the SRO may lead or guide initiatives to address them. Implementation for almost all of the proposed solutions will require coordination across the entire state.

Communication and Coordination

There is a need for a centralized coordinating body, which would serve to assist the RPDCs, LTRCs, and other municipal and local organizations. Municipal, regional and local organizations want to sustain their unique communities, and although they have access to some information (funding opportunities, programs, and resources), there are many gaps. They would benefit from a coordinating body which can obtain and disseminate comprehensive information and opportunities related to long term recovery. Also, they must ensure regional and state-wide meetings are regularly scheduled and supported administratively. Communications are a big issue. There should be a platform for disseminating information to local communities to ensure the whole state is equipped with the tools needed to make efficient and effective decisions.

Recommendations:

1. The SRO should serve as the main coordinating body for information-sharing and communicating state goals, plans and programs to local and regional partners. Embedding SRO staff with RPDCs may be considered to provide direct technical and coordination assistance.
2. Coordinate with regional and local organizations, holding regular meetings/conference calls, in order to maintain and grow relationships. The communication should increase during the disaster recovery process to ensure that there is clear communication between the state and local representatives.

Capacity

Municipal, regional and local organizations all reported a lack of capacity, both in personnel and finances. As a result of limited staffing, the ability to implement current program activities, and search for new funding and projects, is greatly hindered. It is also challenging to find sufficient funding to support implementation. Needs include a reliable, continued funding source to support current staff and future needs.

Recommendations:

1. The SRO should work to enhance statewide resiliency and recovery preparedness by encouraging recruitment and retention of qualified personnel. The SRO can support this effort by providing or coordinating training opportunities through federal and state partners, to include: long-term recovery planning and implementation, community resiliency and sustainability.
2. Provide technical support to local organizations throughout the grant process: researching, writing, management, and assessment/reporting.
3. Use CDBG-DR funds or other sources to employ LDRMs in disaster impacted areas.

Community Engagement

West Virginia communities want to be engaged in the recovery process and work on resiliency efforts from the bottom-up. Some believe there is too much reliance on the state and federal programs, and want communities to “own” their recovery. Municipal and local organizations would like assistance in organizing and fostering community engagement.

Recommendations:

1. The SRO can coordinate regular regional meetings to organize local community-wide recovery priorities, then integrate these priorities into state-wide initiatives, leveraging existing relationships and programs with federal and other partners.
2. Engage local citizens and state partners through the use of social media. Use of websites, Facebook and Twitter are often easily accessible and widely used.

Resilient Housing

The need for more affordable and resilient housing was expressed by all communities. This need existed before the flood; however, the number of individuals and families displaced by the flood has made the need for available housing a priority. Additionally, blight is a challenge in many communities. Local efforts to demolish vacant and dilapidated structures are often delayed due to legal waiting periods when owners cannot be located.

Recommendations:

1. The SRO should lead efforts to educate homeowners on preparedness options and mitigation strategies while rebuilding to ensure resiliency.
2. The SRO can work with state government to develop incentives to encourage mitigation strategies while rebuilding.
3. To address blight, the SRO should lead the effort to identify and abate all destroyed, vacant, and derelict structures within the impacted communities and rural areas. Other suggestions include: encouraging private redevelopment of blighted properties and potential use of condemned structures for fire department training exercises.

Broadband

Lack of broadband is a major issue throughout the state. Unreliable and slow internet access affects businesses, retention of talent and potential businesses coming to West Virginia, individual access to information and internet-dependent employment (home and otherwise), and the ability to study and work from home.

Recommendation: The formation of the Governor’s West Virginia Broadband Enhancement Council (WVBEC) in 2016 illustrates the state’s commitment to increase broadband access and set goals for expanding broadband networks in the impacted rural areas. The SRO should serve as a liaison and hub for information-sharing to local communities and organizations so that they can explore programs which may help get their communities connected.

GIS Data

Geographic Information System (GIS) data and capabilities are limited at the regional and local level. There are various small sections of reliable utility data, and the West Virginia Infrastructure and Jobs Development Council has water and sewer systems mapped. The data available, however, is often not comprehensive. There is a need for a centralized, comprehensive GIS system, which can be accessed by all state, regional and local agencies and organizations. Access to such a system would be instrumental in planning efforts, grant applications, and programmatic reporting.

Recommendations:

1. The SRO can coordinate GIS requests with the West Virginia Office of GIS Coordination (<http://www.wvgs.wvnet.edu/www/giscoord/index.php>) and the West Virginia Geological and Economic Survey (<http://www.wvgs.wvnet.edu/www/giscoord/index.php>) to see if needed information and mapping already exists.
2. The SRO can serve as a central hub for information-sharing on programs available to state and local organizations that may help fill the GIS capability gap.

Economic Development

There is a strong desire to expand available economic development assets throughout the state. Regional and local organizations want to use and enhance what is available to them: rivers, adventure tourism, theaters and “Main Street” initiatives. Communities want to see their storefronts filled and streets lined with residents and tourists alike; in order to attract businesses and tourists, they need help rebuilding and developing those attractions.

Recommendation:

In coordination with EDA and other partners, the SRO should lead oversight of economic development initiatives in West Virginia through the lens of resiliency. Many of the suggestions below are discussed in greater detail in the RSS:

1. Support and encourage municipality efforts to explore and implement economic diversification.
2. Support revitalization of downtown commercial districts to promote business development and economic diversification.
3. Coordinate town hall meetings and encourage community engagement in economic planning and development meetings.
4. Identify opportunities to develop new and improve existing tourism attractions, destinations and businesses.
5. Expand and publicize the state trails plan (walking/biking/hiking/ATV).
6. Expand and publicize historic and cultural sites.
7. Develop mechanisms that allow the state to better encourage development of new entrepreneurs and to develop new skilled workers for the tourism sector.

Floodplain Restrictions

Development in the floodplain and floodway has drastically increased flood risk in West Virginia and made the population vulnerable to catastrophic losses. Current and future development in these areas is unavoidable, but steps can be taken to mitigate against risk and make communities more resilient. The SRO should work closely with West Virginia DHSEM to promote mitigation measures and other programs to reduce the overall risk throughout the entire state, and specifically in socially vulnerable areas.

Recommendations:

1. Strengthen and expand the Community Rating System (CRS) in the state through collaboration with West Virginia DHSEM.
2. Recommend adoption of floodplain ordinances in communities where they are not present. Work with municipalities with existing ordinances to ensure that the code is up to date and being enforced.
3. Promote the use of FEMA grant programs for mitigation of vulnerable assets and populations.
4. Work with the WVU Land Use Clinic to promote the adoption of ordinances to increase resiliency.

7. Monitoring and Measuring Progress

The SRO should identify a set of performance metrics that it can use to independently evaluate the success of state-funded projects. For example, “losses avoided” estimates are perhaps the most effective way to demonstrate how resilience strategies minimize the loss of life and property in different natural disaster scenarios. FEMA’s Hazus-MH is an example of a model that produces losses avoided estimates. The Social Vulnerability Index is another metric that has been used nationwide to measure the exposure of different populations to natural disasters based on capacity for preparedness and recovery. The metric can be applied from the regional level all the way down to individual census tracts.

Beyond providing useful internal feedback, identifying, applying, and publicizing a standard set of performance metrics to state funded projects can help build a strong case for resilience throughout the state. Baselines are needed to better assess progress and to set goals in order to allocate resources. A mechanism is needed to help understand investments made to improve resilience.

Top-down tools are often intended for use by an oversight body or require external expertise to help a community measure different aspects of their resilience to inform decision making. Bottom-up tools are locally based and locally driven indexes and models and are designed to help communities predict how well they would function following a disaster. The overarching target categories for developing community-based resilience measures typically revolve around infrastructure, social factors, buildings and structures and vulnerable populations. Every tool should be:

- Open, transparent, well documented and as simple as possible;
- Can be replicated;
- Can address multiple hazards;
- Are representative of a state’s geographical extent, physical characteristics, and diversity; and
- Are adaptable and scalable to different community sizes, compositions, and circumstances.

Hazard and disaster planning are different from identifying measures. Planning includes measures and indicators, and involves assessing the physical infrastructure and land used for zoning, but does not necessarily take into account the adaptive capacity, the social networks, or the perceptions of the community with respect to risk. Planning is a tool that can be used to help achieve resilience, but resilience is a much broader framework. Similarly, mitigation is a tool that can be used to achieve resilience, but does not take into account different elements within a community that are important in achieving resilience. Leadership is an element not accounted for under planning or mitigation yet is an integral part of why some communities are more resilient than others.

A full rollout of the SRO will involve many simultaneous moving parts, and consistent communication is a crucial part of this process. The SRO should assign staff to conduct regular outreach and check-ins with state agencies undertaking resilience type evaluations, partner

institutions outside of state government, and local governments implementing projects funded through a state resilience fund. This is critical not only to monitor and measure progress on specific projects, but also to receive feedback on the state's performance in the coordinating role and to evaluate the effectiveness of different incentives and strategies.

The SRO should eventually require that any project—local or state level—applying for state funding propose a set of performance metrics that will be used to determine success. These projects should also be required to submit quarterly progress report back to the office and incorporate any data gathered into the state's central resilience database.

8. Resources and Funding to Support Resiliency

Following a presidentially declared major disaster, a plethora of resources become available to help residents and communities recover. The goal of the SRO should be to help the state mitigate against potential hazards and incorporate resiliency into all facets of society. This can range from education and promotion of flood-proofing homes, to implementing major infrastructure projects to address vulnerable assets. The SRO must be the catalyst to make resiliency an engrained piece of current and future decision making. This will involve close guidance and recommendations to all stakeholders.

This section addresses resources and funding sources that may be leveraged by state and local entities to incorporate resiliency measures. There will undoubtedly be additional funding opportunities available, but this section addresses the most common and consistent sources that other states have identified and continually utilize. The SRO should be the clearinghouse for all funding opportunities related to resiliency, and these opportunities should be conveyed to RPDC's, local governments and any other pertinent partners.

Department of Homeland Security (DHS)

Homeland Security Grant Program

The purpose of the Homeland Security Grant Program (HSGP) is to support state, local and tribal efforts to prevent terrorism and other catastrophic events and to prepare the Nation for the threats and hazards that pose the greatest risk to the security of the United States. The HSGP plays an important role in the implementation of the National Preparedness System by supporting the building, sustainment, and delivery of core capabilities essential to achieving the National Preparedness Goal (the Goal) of a secure and resilient Nation. The HSGP supports efforts to build and sustain core capabilities across the five mission areas of Prevention, Protection, Mitigation, Response, and Recovery based on allowable costs

Federal Emergency Management Agency (FEMA)

- **Preparedness (Non-Disaster) Grants**
FEMA provides state and local governments with preparedness program funding in the form of Preparedness (non-disaster) Grants to enhance the capacity of state and local emergency responders to prevent, respond to, and recover from a weapons of mass destruction terrorism incident involving chemical, biological, radiological, nuclear and other explosive devices, and cyber-attacks.
- **Hazard Mitigation Grant Program (HMGP)**
Provides funds to implement hazard mitigation measures following a Presidentially declared disaster. Hazard mitigation actions are any action taken to reduce or eliminate the long term risks to people and property from natural hazards. HMGP funding is made available, when authorized, for hazard mitigation planning and projects. HMGP funding is made available to the State based on the estimated total Federal assistance FEMA provides for disaster recovery under the Presidential declaration. Grants are designed to assist local communities, States, Federally recognized Tribes and Territories with

implementing mitigation measures during the reconstruction process. The goal is to reduce overall risk to the population and structures from future hazard events, while also reducing reliance on Federal funding in future disasters.

- **Pre-Disaster Mitigation (PDM)**
Program provides funds to States, territories, Indian Tribal governments and communities for hazard mitigation planning and the implementation of mitigation projects prior to a disaster event. Federal funding for this nationally competitive grant program is generally an annual allocation (subject to Congressional appropriation).
- **Flood Mitigation Assistance (FMA)**
Provides federal funding to assist states and communities to fund cost effective measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the National Flood Insurance Program (NFIP).

Economic Development Authority (EDA)

- **Planning and Local Technical Assistance Programs**
Assists in developing economic development plans and studies designed to build capacity and guide the economic prosperity and resiliency of a region. The Planning program helps support investments designed to guide the eventual creation and retention of high-quality jobs, particularly for the unemployed and underemployed in the Nation's most economically distressed regions. The Local Technical Assistance program strengthens the capacity of organizations to undertake and promote effective economic development programs through projects such as feasibility studies and impact analyses.
- **Public Works and Economic Adjustment Assistance**
Designed to leverage existing regional assets and support the implementation of economic development strategies that creatively advance economic prosperity in distressed communities. EDA gives particular consideration to applications for communities with low income and high unemployment, and where severe weather has impacted businesses. Projects must include a focus on encouraging job growth.

United State Department of Agriculture (USDA)

- **Agricultural Management Assistance Program**
Helps agricultural producers use conservation to manage risk and address natural resource issues through natural resources conservation.
- **Conservation Innovation Grants**
Offer funding opportunities at the state level to stimulate the development and adoption of innovative conservation approaches and technologies that leverage federal investment in environmental enhancement and protection.

- **The Conservation Stewardship Program**
Helps agricultural producers maintain and improve their existing conservation systems and adopt additional conservation activities to address priority resources concerns. Participants earn CSP payments for conservation performance—the higher the performance, the higher the payment.
- **Rural Economic Development Loan and Grant program**
Provides funding for rural projects through local utility organizations. USDA provides zero-interest loans to local utilities which they, in turn, pass through to local businesses (ultimate recipients) for projects that will create and retain employment in rural areas. The ultimate recipients repay the lending utility directly. The utility is responsible for repayment to USDA.
- **The Environmental Quality Incentives Program**
Provides financial and technical assistance to agricultural producers in order to address natural resource concerns and deliver environmental benefits, such as improved water and air quality, conserved ground and surface water, reduced soil erosion and sedimentation, or improved or created wildlife habitat.
- **Rural Energy for America Program Energy Audit & Renewable Energy Development Assistance Grants**
Grantees assist rural small businesses and agricultural producers by conducting and promoting energy audits, and providing renewable energy development assistance (REDA).

Housing & Urban Development (HUD)

- **Community Development Block Grant (CDBG)**
Provides federal funds for community and economic development projects throughout West Virginia. The program supports job creation and retention efforts, local government efforts to provide affordable infrastructure systems and community efforts to improve the quality of life for low- to moderate-income citizens. The program supports the development of viable communities by assisting in the provision of a suitable living environment and expanding economic opportunity, principally for those of low and moderate income (80 percent and below median household income).
- **Community Development Block Grant –Disaster Recovery (CDBG-DR)**
HUD provides flexible grants to help cities, counties, and States recover from presidentially declared disasters, especially in low-income areas, subject to availability of supplemental appropriations. In response to presidentially declared disasters, Congress may appropriate additional funding for the Community Development Block Grant (CDBG) Program as Disaster Recovery grants to rebuild the affected areas and provide crucial seed money to start the recovery process. Since CDBG Disaster Recovery (CDBG-DR) assistance may fund a broad range of recovery activities, HUD can help communities and neighborhoods that otherwise might not recover due to limited resources.

United States Army Corp of Engineers (USACE)

The USACE Flood Risk Management Program (FRMP) works across the agency to focus the policies, programs and expertise of USACE toward reducing overall flood risk. This includes the appropriate use and resiliency of structures such as levees and floodwalls, as well as promoting alternatives when other approaches (e.g., land acquisition, flood proofing, etc.) reduce the risk of loss of life, reduce long-term economic damages to the public and private sector, and improve the natural environment.

Environmental Protection Agency (EPA)

- **Building Blocks for Sustainable Communities**
One- to two-day, targeted technical assistance to give communities tools to implement smart growth development approaches. Eligible applicants are tribal, county, and local governments, and nonprofit organizations that have the support of the local government on whose behalf they are applying.
- **Cool & Connected**
Helps rural communities use broadband service to revitalize main streets and promote economic development. Any community representative can apply.
- **Greening America's Communities**
Helps selected cities and towns envision and implement design strategies for more sustainable communities. In 2016, the program is being offered to cities that are participating in EPA's Making a Visible Difference in Communities initiative or the Strong Cities, Strong Communities initiative. Formerly called Greening America's Capitals.
- **Healthy Places for Healthy People**
Helps communities create walkable, healthy, economically vibrant places by engaging with their health care facility partners such as community health centers (including Federally Qualified Health Centers), nonprofit hospitals, and other health care facilities. Eligible applicants include local government representatives, health care facilities, local health departments, nonprofit organizations, tribes, and others proposing to work in a neighborhood, town, or city anywhere in the United States.
- **Local Foods, Local Places**
Helps communities develop and implement action plans that promote local foods and downtown revitalization. Representatives of communities anywhere in the United States are eligible to apply. This program builds on the Livable Communities in Appalachia Program, which offered technical assistance to help small towns and rural communities in Appalachia revitalize their traditional downtowns to boost the local economy and improve quality of life.
- **Smart Growth Implementation Assistance**
Works with public-sector entities that want to incorporate smart growth techniques into their development. As of 2015, EPA's regional staff identifies and selects communities to

assist. Summaries and reports from past SGIA projects can be helpful to communities facing similar issues.

- **Brownfields Grant**
Empowers states, communities, and other stakeholders to work together to prevent, assess, safely clean up, and sustainably reuse brownfields. A brownfield site is real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. EPA provides financial assistance to eligible applicants through four competitive grant programs: assessment grants, revolving loan fund grants, cleanup grants, and job training grants. Additionally, funding support is provided to state and tribal response programs through a separate mechanism.

Appalachian Regional Commission (ARC)

Provides federal grant funds for the support of economic and community development in West Virginia and 12 other states in the Appalachian Region. The goal of ARC is to create opportunities for self-sustaining economic development and improved quality of life. Projects approved for ARC assistance must support one of the four general goals:

1. Increase job opportunities and per capita income in Appalachia to reach parity with the nation.
2. Strengthen the capacity of the people of Appalachia to compete in the global economy.
3. Develop and improve Appalachia's infrastructure to make the Region economically competitive.
4. Build the Appalachian Development Highway System to reduce Appalachia's isolation.

Additional Funding Sources

Each county and community will have grants and resources that are not available to others due specific factors. Each potential applicant should check with local economic development organizations, RPD's, non-profit and philanthropic organizations for potential funding sources. FEMA also delivered a West Virginia Community Recovery Resource Guide that is a comprehensive document that details potential grant opportunities across all sectors.

The SRO should provide technical assistance related to resiliency functions for application development, implementation and closeout. The office should also look at the possibility of hiring Local Disaster Recovery Coordinators (LDRC's) or circuit riders that can assist with grant the process in specific areas or counties.

The SRO should also look at established a Resiliency Fund or similar source to provide funding to communities that make resiliency a priority. This can be done through future CDBG-DR allocations or the creation of a special fund.

Trautwein, Hannah

From: Kessler, Hannah
Sent: Monday, October 16, 2017 12:53 PM
To: Young, James (james.young@fema.dhs.gov)
Cc: Russell W Tarry (Russell.W.Tarry@wv.gov)
Subject: Summit Information
Attachments: Recovery_Summit_partners.pdf

Hi James,

We had our first SRO Board meeting this morning, and passed on what info we had about the Summit on the 7th.

Could you send over any new information you may have about that?

I've attached the latest agenda we have received, but I would like to send a follow up email to the board by the end of the day with the most accurate information available now.

Will it still be housed in our office here at building 3?

Is the timing set?

Thank you!

Hannah

Hannah Kessler | State Resiliency Office

Community Advancement and Development
A Division of the West Virginia Development Office
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(304) 558-2234 | wvcad.org  



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West Virginia Governor's Disaster Recovery Summit

Purpose

To develop an overarching, unified strategy that multiple state and federal agencies will use to guide recovery funding decisions related to the June 2016 flood event. This unified strategy should enable informed decision-making by senior leadership at all levels: local, state, and federal. As a first step in creating this unified strategy, this summit will convene senior level state and federal officials to build consensus on strategic priorities, a framework for the strategy, and a path forward and timeline for the strategy's development. While the summit will focus on how to maximize almost \$700 million in funding available following flooding in June 2016, this approach can be applied to future resource allocation and funding decisions that will enhance the West Virginia's resilience while also spurring economic development and creating jobs.

Event Details

Date: Tuesday, November 7, 2017

Time: 9:00am – 11:00am

Proposed Location:

WV Capitol Complex
1900 Kanawha Blvd E.
Building 3; 8th Floor

Proposed Participants

| Agency | Name | Position |
|-----------------------------------|----------------------|--------------------------|
| WV Governor's Office | Mike Hall | Chief of Staff |
| WV Department of Commerce | Woody Thrasher | Cabinet Secretary |
| WV Department of Military Affairs | Jeff Sandy | Cabinet Secretary |
| WVNG | James Hoyer | Adjutant General |
| WV DHSEM | Jimmy Gianato | Director |
| VOAD | Jenny Gannaway | Director |
| US Senate | Shelley Moore Capito | Senator |
| US Senate | Joe Manchin | Senator |
| US House of Representatives | Alex Mooney | Representative |
| US House of Representatives | Evan Jenkins | Representative |
| US House of Representatives | David McKinley | Representative |
| HUD | Joe DeFelice | Region III Administrator |
| FEMA | MaryAnn Tierney | Region III Administrator |
| EDA | Linda Cruz-Carnall | Regional Director |

State Resiliency Board

Meeting Minutes

Monday, October 16th 2017

A meeting of the State Resiliency Office Board was held at 9:00am on Monday, October 16th, 2017 at the West Virginia Advancement and Development Office in Charleston, West Virginia

The following board members were present:

- Director Jimmy Gianato, West Virginia Division of Homeland Security and Emergency Management
- Director Stephen McDaniel, West Virginia Division of Natural Resources
- Jeff Wood, Designee for General James Hoyer, West Virginia National Guard
- Norman Bailey, Chief of Staff West Virginia Department of Agriculture
- Director Brian Farkas, West Virginia State Conservation Agency
- Secretary Austin Caperton, West Virginia Department of Environmental Protection
- Director of Community Advancement and Development Mary Jo Thompson, Designee for Secretary Thrasher, Department of Commerce

The following council members were absent:

- Secretary Jeff Sandy, West Virginia Department of Military Affairs and Public Safety
- Secretary Thomas Smith, West Virginia Department of Transportation

Others present:

- Deputy Director Russell Tarry, West Virginia Community Advancement and Development
- Jennifer Ferrell, West Virginia Community Advancement and Development
- Hannah Kessler, State Resiliency Office, West Virginia Community Advancement and Development

The meeting was called to order by Director Mary Jo Thompson: Director Thompson welcomed the board and introduced her staff present.

Director Thompson spoke of the vision behind and the steps taken to revive House Bill 2935, which created the SRO Board, Office, and Legislative Committee on Flooding. She also spoke of the responsibility that comes from this legislative mandate to recovery this state and make it resilient.

Some action items mentioned were:

Creation of a special committee, with Brian Farkas WV Conservation Agency as head.

The reminder that this committee will report quarterly

A request for each agency to create point person for future needs and meetings

Director Thompson encouraged all members to continue collaboration between state agencies, as well as federal and private sectors. She said if we are looking to make long term changes in resiliency we all have to work together in order to do so. She is going to make amendment to HB 2935 to include West Virginia Department of Agriculture into the State Resiliency Board.

There will be a Recovery and Alliance Session on November 7th, as the Development office works with FEMA to push information out to agencies involved. This will be a large collaboration on many levels for the sake of disaster relief, recovery and resiliency.

Director Jimmy Gianato, West Virginia Division of Homeland Security and Emergency Management mentioned that this disaster brought in more financial support than anything he has ever seen. He also encouraged the group that one of their main functions is to collaborate on resource allocation to maximize these funds while not duplicating services.

Director Thompson agreed that West Virginia is on the map for recovery, and the county is looking at the way we spend this money.

Director Gianato then explained that the disaster of 2017 was isolated to 4 Counties in the northern part of the state. These included Wetzel, Marion, Harrison and Marshall. This flood was not to the extent of the 2016 flooding, but made sure to mention that when you are the one affected the extend on a state level doesn't matter as much to you. He also applauded private sector donors, and philanthropic groups for the building of (estimated) 1,000 homes since the June 2016 floods.

All members of the board were invited to attend the November 7th Recovery Session with more details being passed on as they arrive.

A motion was made and seconded and the SRO Board meeting was adjourned



Recovery Support Strategy

FEMA-4273-DR-WV

Federal Interagency Recovery Coordination

January 2017



US Army Corps
of Engineers®

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Executive Summary

This Recovery Support Strategy (RSS) describes the direction that federal agencies and their partners will take to support the gaps in West Virginia's capacity to recover from the disaster event of June 22-29, 2016, focusing on the issues identified in the Mission Scoping Assessment (MSA) report. It will also serve as a federal coordination document for the Recovery Support Function (RSF) agencies and organizations. The RSS identifies 69 strategies that the State, RSF agencies and their partners can take to address the 15 identified recovery issues. The RSS also provides milestones, in the form of measurable objectives, to help track progress and implementation actions which identify critical stakeholders and describe how the RSFs anticipate contributing to the solution of state and local recovery issues or core capability gaps.

An initiative key to the State's recovery and many of the actions described in this RSS is establishing a State Resiliency Office (SRO). The suggestion to create an SRO came about through multiple discussions with State and federal stakeholders including the WV Secretary of Commerce, members of the WV Department of Commerce, the US Economic Development Administration, and the Federal Emergency Management Agency (FEMA). The purpose of the proposed SRO is to oversee and coordinate implementation of long-term recovery efforts, including those recommended by the Community Planning and Capacity Building, Economic Recovery, Housing, and Infrastructure Systems RSFs. Additionally the SRO will look to implement measures that will enhance West Virginia's overall resiliency. While an SRO has not been established as of the final draft of this RSS, the WV Department of Commerce has strongly expressed its desire to create and embed the SRO within the WV government structure and the federal agencies involved with the development of this RSS are committed to supporting the SRO's establishment.

Issues & Strategies Summarized by Recovery Support Function

COMMUNITY PLANNING AND CAPACITY BUILDING

Issue: State Recovery Capacity Strained

Strategies:

- Scope, fund, and stand up the West Virginia SRO
- Determine staffing needs to successfully manage recovery
- Fill the staffing gaps identified in the staff capacity comparison
- Determine any gaps in required skill level and knowledge base
- Implement training and education programs to meet recovery needs

Issue: Local Recovery Capacity Exceeded

Strategies:

- Determine staffing needs to successfully manage recovery
- Fill the staffing gaps identified in the staff capacity comparison
- Determine any gaps in required skill level and knowledge
- Implement training and education programs to meet recovery needs

Issue: Recovery Planning Challenges

Strategies:

- Develop an appropriate state-level recovery plan model that can be adopted and shared with regional and local communities and a process for supporting regional and local communities with recovery planning support
- Develop a mechanism to identify and prioritize communities needing/requesting assistance with comprehensive planning

ECONOMIC RECOVERY

Issue: Insufficient Economic Diversity

Strategies:

- Enable the most severely impacted areas to implement principles in economic diversification
- Develop four sites with at least 50 acres each for development in the flood impacted area by 2020
- Revitalize downtown commercial districts to promote business development and economic diversification
- Expand the current National Dislocated Worker Grants program to include clean-up and minor repairs to impacted homes and businesses
- Expand/establish a paid internship program and paid on-the-job training programs throughout the impacted area
- Identify opportunities to develop new and improve existing tourism attractions, destinations, and businesses in flood-impacted area
- Expand and publicize the state trails plan (walking/biking/hiking/ATV)

- Expand and publicize historic and cultural sites
- Develop mechanisms that allow the state to better encourage development of new entrepreneurs and to develop new skilled workers for the tourism sector
- Establish a West Virginia Tourism Development Center with oversight for hospitality training and to support job placement in the tourism sector
- Expand existing initiatives to diversify the agriculture sector and use them as an opportunity to train and employ displaced workers in flood-impacted areas

Issue: Lack of Internet Connectivity to Support Business and Industry Growth

Strategies:

- Provide West Virginia Broadband Enhancement Council (WVBEC) staff to conduct research and implement initiatives as directed by the council
- Analyze the feasibility of the provision of affordable broadband and secure funds for identified broadband initiatives

Issue: Limited Access to Capital

Strategies:

- Create alternate financing options (bridge loans, grants) following an economic disruption
- Educate community leaders (e.g., economic development authorities, chambers of commerce) on the capital resources available to businesses following a disaster

Issue: Lack of Business Planning and Economic Resiliency

Strategies:

- Promote strategic business planning to include continuity planning and succession planning and offer training and planning tools through engagement of public and private sector partners
- Build a state public-private partnership through development of county-level partnerships
- Identify an existing database or develop a new business database to support business damage assessment and accelerate deployment of assistance to businesses and workers impacted by a disaster
- Establish working group/business recovery team to support business and workforce recovery following an economic disruption
- Identify workforce vulnerabilities that impact business resiliency and post-disaster recovery
- Identify supply chain vulnerabilities of primary industries that impact business resiliency and post-disaster recovery
- Educate community planners and local leaders on the principles of economic resiliency planning
- Explore resources to provide additional staff to manage economic recovery and resiliency

Issue: Infrastructure Capacity Needs Improvement**Strategies:**

- Study each impacted area to assess needs
- Complete infrastructure projects in highest priority areas
- Analyze and upgrade water and sewer capacity in the impacted area
- Enact a code enforcement program
- Establishment and implementation of a program to remove debris (FEMA ineligible) from waterways in the impacted areas

Issue: Support Needed to Create and Sustain Regional Brands**Strategies:**

- Develop policy and procedures to guide local and regional leaders on how to manage media and counter negative publicity
- Establish a dedicated source of funding to execute a tourism communications and branding campaign to counter negative publicity following a disaster

HOUSING**Issue: Increased Financial Burdens on Households after the disaster****Strategies:**

- Educate homeowners on preparedness options
- Develop incentives to encourage mitigation strategies while rebuilding
- Complete all home repairs to disaster-damaged units not involving structural mitigation
- Provide owners of older and historic homes with guidance to mitigate their flood damaged structure
- Address property title issues that prevent eligibility for federal assistance
- Adopt state-wide land development standards, including modern building code requirements for local adoption and enforcement
- Identify issues preventing individual household disaster recovery
- Address issues preventing individual household recovery
- Increase housing opportunities for low-and moderate-income households based on local market demands
- Identify all Housing RSF partner programs that could be modified to be available to disaster survivors and impacted communities
- Identify needed waivers to make federal programs applicable for disaster recovery

Issue: Lack of Habitable and Environmentally Healthy Housing**Strategies:**

- Encourage mold remediation in flood-affected homes
- Identify and abate all destroyed, vacant, and derelict structures within the impacted communities and rural areas
- Encourage private redevelopment of blighted properties
- Encourage private redevelopment of blighted properties

- Incorporate weatherization, energy efficiency, and sustainable design in all recovery reconstruction
- Coordinate with the WV Department of Environmental Protection (WVDEP), US Department of Agriculture (USDA), and EPA regarding the availability of funding to repair or replace all individual private water treatment systems damaged during the June flooding event

Issue: Lack of Resilient Housing Options

Strategies:

- Relocate or elevate all damaged structures, including repetitive and severe loss structures affected by the June 2016 flooding event
- Remove substantial-damaged structures in the floodway
- Coordinate with federal and nonfederal resources to fund and publish a design study specific to small, rural, valley communities
- Support local communities to adopt any relevant aspects from the design study into their recovery strategies
- Define resources to mitigate damaged private water crossings

INFRASTRUCTURE

Issue: Damaged water and wastewater treatment plants lack resiliency for timely recovery

Strategies:

- Develop and implement flood risk adaptive measures, identify sources of funding, obtain permits to construct
- Utilize existing programs and authorities to address environmental infrastructure needs
- Regionalize water and wastewater treatment plants and associated infrastructure

Issue: Lack of broadband access

Strategies:

- Re-evaluate and prioritize the recommendations made by the strategic plan
- Develop and maintain a list of potential funding sources for broadband infrastructure deployment

Issue: Schools in the flood impact area damaged and/or destroyed

Strategies:

- Determine best use of resources and best outcome for the whole community in providing modern facilities in less flood prone areas
- Develop and implement flood risk management measures and identify funding

Background

From June 22-29, 2016, severe storms, flooding, mudslides, and landslides, generated by a slow moving series of storms, brought widespread damage and destruction to West Virginia. Spanning multiple counties, the storms resulted in 23¹ confirmed deaths. Thousands of homes, hundreds of businesses, and significant infrastructure, including five schools, were severely damaged or destroyed.

Governor Earl Ray Tomblin declared a state of emergency on June 23, 2016. On June 24, the governor requested a major disaster declaration which the President approved on June 25. Following a series of amendments, a total of 12 counties were designated for FEMA's Individual Assistance (IA) and Public Assistance (PA) programs, with another six designated for PA only. The declaration also made FEMA Hazard Mitigation Program funding available statewide.

Rural communities, many already losing population and in economic decline, were the hardest hit. Mountainous terrain (in narrow valleys) confines much of the affected areas' residential and commercial development. This geographic constraint places much of the population within floodplains, exacerbating damage from such severe weather events.

In July 2016, the Federal Emergency Management Agency (FEMA) Advance Evaluation Team (AET) deployed to West Virginia to assess the damages from the 2016 severe storms, flooding, landslides, and mudslides. Their report indicated that additional federal support, above and beyond Stafford Act support, was required. This included the appointment of a Federal Disaster Recovery Coordinator (FDRC) to coordinate the recovery efforts and the activation of three RSFs: Community Planning and Capacity Building (CPCB), Economic Recovery, and Housing. FEMA deployed staff from the National Disaster Recovery Support (NDRS) cadre, an External Affairs Advisor and a Mitigation Advisor which, along with the RSF Field Coordinators, constituted the Interagency Recovery Coordination (IRC) group.

To lead the state's recovery the governor named West Virginia National Guard (WVARNG) Gen. James Hoyer as the West Virginia Chief Recovery Officer on July 13. West Virginia Department of Commerce (WVDOC) Secretary Keith Burdette was named the West Virginia State Disaster Recovery Officer (SDRO) at the same time.

In mid-August a MSA, developed by the IRC group, identified impacts of the disaster which helped to determine gaps in the State's capacity to recover.

¹ Confirmed with the Office of the Chief Medical Examiner at the W.Va. Department of Health and Human Resources on January 24, 2017.

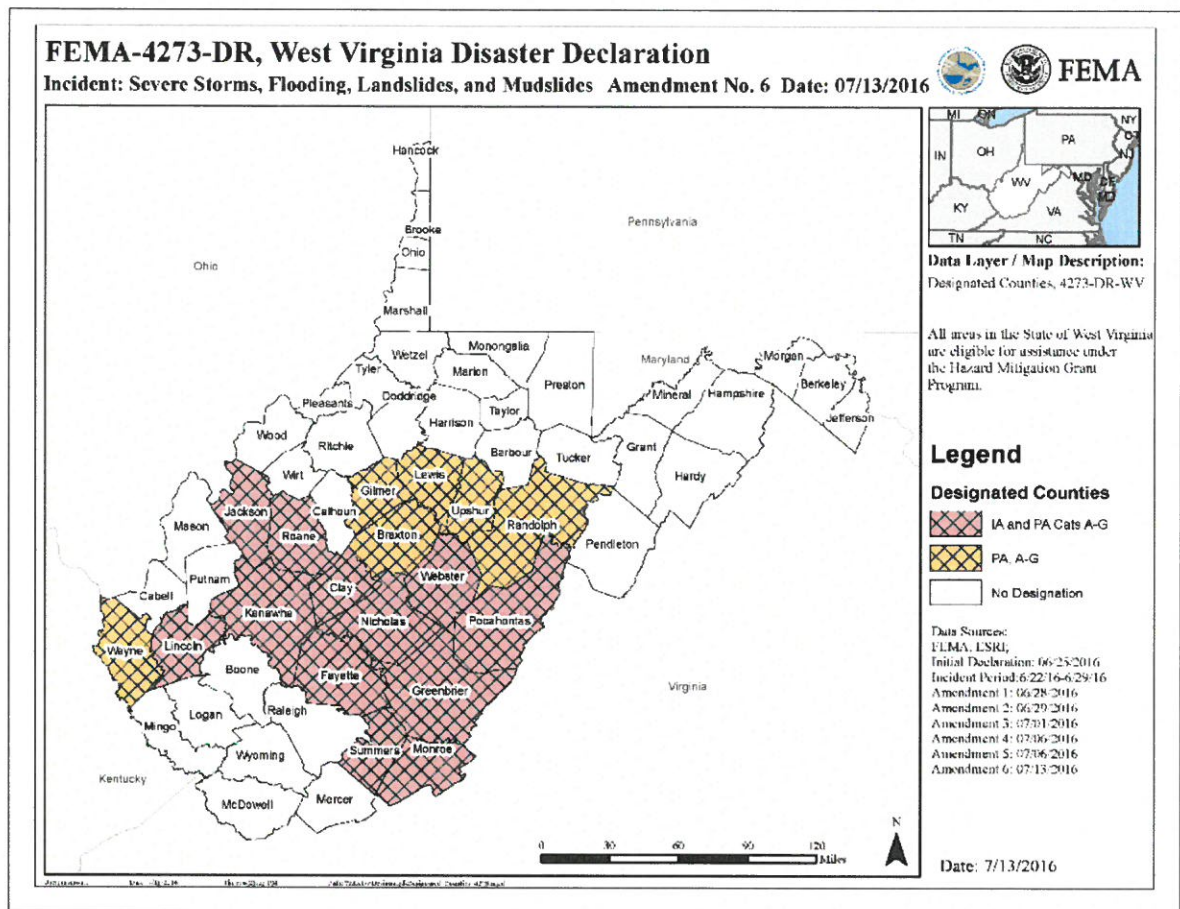


Figure 1: Map of Disaster Declared Counties with an IA or PA designation or both.

The National Disaster Recovery Framework

The National Disaster Recovery Framework (NDRF) is one of five frameworks in the National Preparedness System. Each one of the frameworks describes how the whole community works together for a “secure and resilient nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk”.

Experience has shown that recovery from a disaster takes the organization, coordination, and cooperation of the whole community: local, state, and federal government as well as individuals, families, businesses, and nonprofit organizations. These entities must effectively work together to rebound from the extremely disruptive impacts of large-scale events.

The NDRF provides a structure for federal agencies to work together to support states affected by large scale or catastrophic incidents. The framework brings Federal, Tribal and State experts

together to advise decision-makers on the best methods to achieve an effective recovery. Its flexible structure enables all parties to operate in a unified, collaborative manner and focuses on how best to restore, redevelop and revitalize the health, social, economic, natural and environmental fabric of the community to build a more resilient nation.

It defines the core recovery principles, roles and responsibilities of recovery coordinators and other stakeholders; outlines a coordinating structure that fosters communication and collaboration among all stakeholders; provides guidance for pre- and post-disaster recovery planning; and describes the overall process by which communities can capitalize on opportunities to rebuild stronger, safer, and smarter.

The NDRF provides guidelines for how the FDRC, RSF Field Coordinators, RSF agencies, and partner entities can work together to support recovery efforts in coordination with nongovernmental and private sector organizations including people with disabilities and those who may have access or functional needs. As a result the FDRC and RSF agencies are able to reach across several sectors and promote coordination among stakeholders from the whole community. Each RSF has a coordinating federal agency, primary and supporting agencies, as delineated in the NDRF.

About the Recovery Support Strategy

Experience has shown that communities who develop a plan for recovery often fare better than communities who do not. When a shared vision is agreed upon, objectives and strategies are developed, and collaboration is achieved, the results are stronger and more resilient than those found through an ad hoc process. The strategies outlined in this RSS resulted from an assessment of the conditions following the disaster. Key federal agencies and their State counterparts reviewed data from an extensive list of sources, interviewed local officials, and toured the affected areas. The IRC group then analyzed the data to discover the biggest gaps in the recovery core capabilities.

Included in background research is a detailed analysis of pre-existing demographics of the impacted populations. The University of South Carolina was engaged to provide the team with their methodology for determining Social Vulnerability by community. See the Social Vulnerability Index (SoVI) in Attachment 1. The SoVI information was cross referenced with impacts and recovery solutions.

The RSS serves as an organized way to inform the recovery stakeholders of the type, scope, and nature of RSF recovery support that can be provided to the State and local governments of West Virginia. The strategies and objectives may require further analysis and can be refined as the priorities of the State are further developed. Through dialogue and coordination with RSF partners, RSF Field Coordinators, and IRC: key recovery goals, strategies, and actions are identified on the following pages. The time frames for actions are: a) Short-term, 1-12 months; b) Intermediate, 1-3 years; c) Long-term, 3+years.

Community Planning and Capacity Building

U.S. Department of Homeland Security
Federal Emergency Management Agency



Mission: *to enable local governments to effectively and efficiently carry out community based recovery planning and management in a post disaster environment. CPCB also supports state or territorial governments in developing programs of support for local recovery planning.*

This section of the RSS builds upon the findings and conclusions identified in the MSA and contains specific strategies to address identified impacts and capacity gaps. It summarizes key findings impacting community planning and capacity building in West Virginia and defines recovery issues, goals, objectives, and strategies to support recovery and build resiliency following the devastating effects of the severe storms, flooding, landslides, and mudslides.

After a disaster, communities lack capacity to effectively and efficiently address large complex and unfamiliar challenges. Areas where capacity may be inadequate are administration, human resources, and finance. Capacity may be adequate for day-to-day operations, however, a major disaster strains the resources of the state, local officials, and staff.

The severe storms, flooding, landslides, and mudslides of June 22-29, 2016, severely impacted the 12 counties designated for FEMA's Individual Assistance Program. Many of the affected communities are small municipalities who were already dealing with pre-disaster community and capacity challenges, including declining populations, strained economies, economically vulnerable residents, and significant blight.

Disaster recovery requires local capacity to address complex problems in infrastructure, housing, commerce, community resources, and the natural environment. In the 12 IA designated counties, local capacity to plan, finance, and manage recovery activities varies: some communities require minimal outside support while others face difficult recovery challenges and would benefit from significant assistance. The CPCB RSF supports state, county, local governments, and agencies by collaborating with a broad range of recovery partners in building recovery capacities.

| Community Planning and Capacity Building Partner Agencies | |
|--|---|
| American Planning Association | WV Economic Development Authority |
| Appalachian Regional Commission | WV Municipal League |
| County Commissioner's Association of WV | WV National Guard |
| International Economic Development Council | WV Regional Planning & Development Councils |
| National Association of Development Organizations | WV State University Research Development Corp. |
| New River Gorge Regional Development Authority | WVU Extension Service |
| WV Association of Counties | WVU School of Design & Community Development |
| WV Chapter of the American Planning Association | WVU Land Use & Sustainable Development Law Clinic |
| WV Div. of Homeland Security & Emergency Mgmt. | WV Volunteer Organizations Active in Disasters |

Table 1: these agencies are in addition to the Federal Partner Agencies listed in Attachment 2

Key Findings

The CPCB RSF identified three sector-specific recovery issues:

State Recovery Capacity Strained

- Limited Institutional Knowledge and Staffing
- Need for Broader Recovery Coordination

Local Recovery Capacity Exceeded

- Limited Staffing, Capabilities, or Capacity
- Limited Access to Resources
- Continued Susceptibility to Flooding

Recovery Planning Challenges

- Lack of Pre- and Post-disaster Recovery Planning
- Lack of Comprehensive Planning

Issue: State Recovery Capacity Strained

Despite the overall resiliency demonstrated by the citizens of West Virginia there are limits to the capacity of the communities and the State to plan, manage, and implement recovery tasks. Although cities and counties in West Virginia may be accustomed to both short-term and long-term planning activities as part of normal government functions, a disaster presents a “new normal,” creating sometimes overwhelming challenges to local or state government staff and the population at large.

Many state-level agencies have limited capabilities which can leave staff overwhelmed with additional workloads created by disaster recovery needs. Additionally, even if state government departments have adequate staff, those staff members may lack the requisite knowledge, skills, and abilities to manage recovery efforts.

The State of West Virginia has very strong preparedness, response, and short-term recovery capabilities, yet lacks an identified state-level agency that is pre-identified to lead recovery

management and resiliency efforts. Without clearly defined recovery roles and responsibilities in disaster recovery, there exists no established recovery structure.

Goal: The State of West Virginia has the capacity to successfully manage and coordinate long-term disaster recovery

Objective: *By July 1, 2017, West Virginia has sufficient staff to develop and successfully manage long-term recovery plans, programs, and projects*

Strategy: Scope, fund, and stand up the West Virginia SRO

Action:

- Develop a 3-5 year scoping and staffing plan for the SRO (Intermediate)
Coordinating Agency: WVDOC (SRO)
Supporting Partners: WV Governor's Office, FEMA
- Secure funding for staff, facility, equipment and operating budget for minimum 3 years
Coordinating Agency: WVDOC (SRO)
Supporting Partners: Appalachian Regional Commission, EDA, FEMA, HUD

Strategy: Determine staffing needs to successfully manage recovery

Action:

- Establish the baseline needs for effective recovery management (Short-Term)
Coordinating Agency: WVDOC (SRO)
Supporting Partners: WV Governor's Office, WVDOC, FEMA, WVDOP
- Compare the state's recovery staff capacity to the established baseline (Short-term)
Coordinating Agency: WVDOC (SRO)
Supporting Partners: WVDOC, WVDOP

Strategy: Fill the staffing gaps identified in the staff capacity comparison

Action:

- Secure funding and hire or cross-train identified staff as needed (Short-term)
Coordinating Agency: WVDOC (SRO)
Supporting Partners: WVDOP, WVDOC, EDA, Appalachian Regional Commission, FEMA

Objective: *By July 1, 2017, State leadership and staff are sufficiently equipped with the skills and knowledge to create and successfully manage long-term recovery plans, programs, and projects*

Strategy: Determine any gaps in required skill level and knowledge base

Action:

- Determine the peer-accepted baseline of expertise needed at the state level for effective recovery management. (Short-term)
Coordinating Agency: WVDOC (SRO)
Supporting Partners: FEMA, WVAPA (WV Chapter of the American Planning Association, West Virginia Floodplain Management Association (WVFMA),

West Virginia colleges and universities, National Emergency Management Association (NEMA), Nongovernmental Organizations (NGOs)

Action:

- Perform a recovery expertise comparison to the baseline to determine needs (Short-term)
Coordinating Agency: WVDOC (SRO)
Supporting Partners: West Virginia Department of Homeland Security and Emergency Management (WVDHSEM), FEMA, West Virginia colleges and universities

Strategy: Implement training and education programs to meet recovery needs

Action:

- Coordinate peer-to-peer mentoring relationships with those from other states who have experienced disasters to share their lessons learned and best practices. (Short-term)
Coordinating Agency: WVDOC (SRO)
Supporting Partners: FEMA-CPCB, WVAPA, WVFMA, West Virginia colleges and universities, NEMA, NGOs

Action:

- Provide disaster recovery information and learning opportunities to State leadership and recovery partners (Short-term)
Coordinating Agency: WVDOC (SRO)
Supporting Partners: Neighboring states, NEMA, FEMA-CPCB, FEMA, Emergency Management Institute (EMI), WVDHSEM

Action:

- Foster partnerships among states, including the use of mutual aid agreements, to facilitate resource sharing (Short-term)
Coordinating Agency: WVDOC (SRO)
Supporting Partners: Neighboring state governments, NEMA, FEMA, WVDHSEM

Action:

- Cultivate a network of pro-bono staff. (Short-term)
Coordinating Agency: WVDOC (SRO)
Supporting Partners: FEMA-CPCB, FEMA, National APA, West Virginia colleges and universities, NGOs

Issue: Local Recovery Capacity Exceeded

Recovery capacity varies widely across the state. Many communities in West Virginia lack capacity to address recovery issues such as floodplain administration, applying for and managing grants, ensuring code enforcement and compliance, developing and implementing recovery plans, and ensuring the whole of community is represented in the recovery decision making process. Limited staff to manage workload, limited staff experience in managing disaster recovery, and limited funding to support additional staff, training, program, and project costs are recovery challenges at the local level.

Goal: Local communities and counties have resources to successfully execute long-term recovery

Objective: *By December 31, 2017, storm affected communities have sufficient staff resources to develop and successfully manage long-term recovery plans, programs, and projects*

Strategy: Determine staffing needs to successfully manage recovery

Action:

- Establish a scalable baseline for staff required by each county or local government (Short-term)

Coordinating Agency: WVDOC (SRO)

Supporting Partners: FEMA-CPCB, FEMA, RPDCs, county governments, WVAPA, West Virginia colleges and universities

Action:

- Compare county/locality recovery staff capacity to the baseline to determine needs (Short-term)

Coordinating Agency: WVDOC (SRO)

Supporting Partners: FEMA, RPDCs, county governments, WVAPA

Strategy: Fill the staffing gaps identified in the staff capacity comparison

Action:

- Secure funding and hire needed staff including local disaster recovery managers (Short-term)

Coordinating Agencies: WVDOC (SRO), RPDCs, and/or county/local government

Supporting Partners: EDA, American Red Cross, Appalachian Regional Commission, Corporation for National and Community Service (CNCS), US Department of Agriculture-Rural Development (USDA-RD), WVDOC, WVDHSEM, HUD

Action:

- Ensure that communities have access to floodplain managers (Short-term)

Coordinating Agencies: WVDHSEM, communities, county governments, RPDCs

Supporting Partners: WVDOC (SRO), FEMA-NFIP, WVFMA

Objective: *By December 31, 2017, local leadership and staff are sufficiently equipped with the skills, resources, and knowledge to develop and successfully manage long-term recovery plans, programs, and projects*

Strategy: Determine any gaps in required skill level and knowledge

Action:

- Determine the recommended baseline of expertise needed at the local level for recovery (Short-term)

Coordinating Agencies: WVDOC (SRO), RPDCs

Supporting Partners: FEMA-CPCB, FEMA, EDA, Department of Labor (DOL), West Virginia colleges and universities

Action:

- Compare available recovery expertise to the baseline for each community to determine needs (Short-term)

Coordinating Agencies: RPDCs

Supporting Partners: FEMA-CPCB, WVDOC, EDA, DOL, West Virginia colleges and universities

Strategy: Implement training and education programs to meet recovery needs

Action:

- Coordinate peer-to-peer mentoring with leaders from communities that have experienced similar disasters to share lessons learned (Short-term)

Coordinating Agencies: WVDOC (SRO), RPDCs

Supporting Partners: WVDOC, FEMA, FEMA-CPCB, EDA, West Virginia colleges and universities

Action:

- Provide relevant tools, such as information, resource sharing, trainings, workshops, and seminars (Short-term)

Coordinating Agency: WVDOC (SRO)

Supporting Partners: FEMA-CPCB, EDA, WVDOP, West Virginia colleges and universities, EMI

Action:

- Host a Recovery Symposium that will focus on resiliency and build capacity for planning efforts from the local level. A discussion on recovery issues will enable participants to develop a strategic approach to recovery, provide local officials with information about various federal, state, and additional whole community recovery resources, and define future training and technical assistance needs (Short-term)

Coordinating Agency: WVDOC (SRO)

Supporting Partners: FEMA, FEMA-CPCB, EDA, EPA, WVAPA, WVDOP, West Virginia colleges and universities, WVDHSEM, NEMA

Issue: Recovery Planning Challenges

There currently exists limited awareness and prioritization of both pre- and post-disaster recovery planning, and no existing disaster recovery plans in the State of West Virginia. Recovery planning is necessary to ensure adequate tools are available following a disaster and to ensure that the whole community works cohesively to reduce vulnerability to future events. Locally driven disaster recovery planning processes assist communities in making informed decisions about goals, policies, priorities, and projects that will guide overall recovery.

Additionally, the existence and quality of a comprehensive plan is a measure of local capacity to conduct post-disaster recovery planning processes. It illustrates the conviction of a community to

improve itself. A good plan is one that translates ideas into actionable projects, each with a project champion and deadline for implementation.

Inclusive planning efforts involve all populations, including the underserved and those with access and functional needs. Failure to integrate diverse and underserved populations in recovery efforts creates barriers to a full recovery.

Many of the communities identified in the disaster affected area do not have comprehensive community plans. This is noteworthy because planning processes are a conduit to engage with stakeholders to define a shared vision before and a disaster and to help ensure implementation of recovery opportunities.

Goal: state, regional, and local entities have the resources/capacity to incorporate recovery planning and comprehensive planning into their existing planning inventory.

Objective: Within a year of the establishment of the SRO, the State of West Virginia has adopted a Pre-Disaster Recovery Plan and is able to assist, regional, county, and storm-affected partners with the development of successful recovery planning efforts

Strategy: Develop an appropriate state-level recovery plan model that can be adopted and shared with regional and local communities and a process for supporting regional and local communities with recovery planning support

Action:

- Provide state, regional, and local staff with recovery planning guidance, training, resources, and tools (Short-term)

Coordinating Agency: FEMA-CPCB

Supporting Partners: FEMA, WVDOC (SRO), RPDCs, county governments, WVAPA, West Virginia colleges and universities

Action:

- Provide state, regional, and local staff with subject-matter expertise to assist them with the development of recovery plans (Short-term)

Coordinating Agency: WVDOC (SRO)

Supporting Partners: FEMA-CPCB, FEMA, WVDOC, RPDCs, county governments, WVAPA, West Virginia colleges and universities

Objective: Within a year of the establishment of the SRO, the State of West Virginia have developed a network of subject-matter expertise resources to assist counties and local communities with the development of comprehensive plans

Strategy: Develop a mechanism to identify and prioritize communities needing/requesting assistance with comprehensive planning

Action:

- Coordinate the match of planning subject-matter experts to local community planning needs.

Coordinating Agency: WVDOC (SRO)

Supporting Partners: FEMA-CPCB, RPDCs, county governments, WVAPA, West Virginia colleges and universities

Strategy: Develop a network of appropriate partners with subject matter expertise in planning and match them to communities in need

Action:

- Identify and engage appropriate partners with subject-matter expertise to assist storm-affected communities with comprehensive planning

Coordinating Agency: WVDOC (SRO)

Supporting Partners: FEMA, RPDCs, county governments, WVAPA, West Virginia colleges and universities

Potential Resources

AIA (American Institute of Architects)

[Center for Communities by Design](#) serves communities with pro bono design assistance and community-driven planning processes; provides technical assistance and training on process design, public engagement, and other community-based sustainability issues; develops resources for communities, partner organizations, government agencies and others; convenes experts and community members to discuss community design and sustainability

APA

[Shared Prosperity](#) A toolkit that arms cities with new ideas for creating a broad, shared prosperity in America's cities, towns, and regions — is now available online

[Community Planning Assistance Teams](#) tailored specifically to a community's needs. Members offer their time and expertise to people and places where additional resources are needed. This program is supported through donations.

CNCS

[Senior Corps](#) connects today's adults, age 55 and older, with the people and organizations that need them most. We help them become mentors, coaches, or companions to people in need, or contribute their job skills and expertise to community projects and organizations

[AmeriCorps Vista](#) engages more than 75,000 Americans in intensive service each year at nonprofits, schools, public agencies, and community and faith-based groups across the country.

DHHS (Department of Health & Human Services)

[Medical Reserve Corps](#) is a national network of volunteers, organized locally to improve the health and safety of their communities.

EDA

[Planning Program and Local Technical Assistance Program](#), assists eligible recipients in developing economic development plans and studies designed to build capacity and guide the economic prosperity and resiliency of an area or region.

EPA

[Smart Growth: Building Blocks for Sustainable Communities](#) program provides targeted technical assistance to selected communities using a variety of tools that have demonstrated results and widespread application.

[Smart Growth: Implementation Assistance Program](#) provides the assistance through a contractor team – not a grant. Through a multiple-day site visit and a detailed final report, the multidisciplinary teams provide options the community can consider implementing to achieve its goal of encouraging growth that fosters economic progress and environmental protection.

EMI, FEMA

[Independent Study](#) offers self-paced courses designed for people who have emergency management responsibilities and the general public. All are offered free-of-charge to those who qualify for enrollment.

FEMA

[CERT: Community Emergency Response Team](#) educates individuals about disaster preparedness for hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. Using training learned in the classroom and during exercises, CERT volunteers can assist others in their community following a disaster when professional responders are not immediately available to help. CERT volunteers are also encouraged to support emergency response agencies by taking an active role in emergency preparedness projects.

[CPCB Toolkit](#) compilation of guidance, case studies, tools, and training to assist local communities in managing long-term recovery following a disaster. The materials provided in this toolkit are aimed at providing guidance and resources to help local officials and community leaders to lead, organize, plan for, and manage the complex issues of post-disaster recovery.

IEDC

[Restore Your Economy](#) It is a one-stop shop of disaster preparedness, post-disaster economic recovery, and economic resilience resources, tools, event announcements, as well as opportunities to connect with peers through social media groups

Silver Jackets

[Silver Jackets](#) teams in states across the United States bring together multiple state, federal, and sometimes tribal and local agencies to learn from one another in reducing flood risk and other natural disasters.

Smart Growth America

[Governor's Institute on Community Design](#) offers workshops designed to: provide state leaders with practical, action-oriented strategies to create vibrant, economically competitive communities; highlight the connections between economic development, transportation, land use, housing, energy and the environment; bring together a broad range of decision-makers and create the basis for coordinated action among state agencies; and encourage increased cooperation between state and local governments.

Economic Recovery

U.S. Department of Commerce

Economic Development Administration



Mission: *to integrate the expertise of the Federal government to help local, state, and tribal governments and the private sector sustain and/or rebuild businesses and employment, and develop economic opportunities that result in sustainable and economically resilient communities, after significant natural and manmade disasters.*

This section summarizes key findings and defines recovery issues, goals, objectives, and strategies for the Economic RSF. The Economic RSF has identified primary economic recovery and resiliency issues based on available impact indicators (e.g., Small Business Administration (SBA) loans applications, state grants to small businesses) and anecdotal damage information shared by federal agencies, the West Virginia Department of Commerce, regional planning councils, and other organizations that are directly engaged in business development and business recovery in the 12 counties most heavily impacted by the June 2016 flood.

The Economic RSF held workshops for federal, state, and local partners to identify the obstacles and potential solutions to recovering local economies and the opportunities to integrate resilience measures in recovery initiatives. To develop goals, objectives, strategies, and actions that might assist the state in addressing economic recovery challenges, the Economic RSF held focus group meetings related to the primary identified issues: economic diversification, broadband connectivity, access to capital for small businesses, business and economic resiliency, inadequate infrastructure, and regional branding. The federal partners have demonstrated their commitment to the state and will work closely with flood impacted communities to support recovery and economic resilience initiatives.

Because many of the flooded communities are also facing challenges related to the downturn in the coal industry, federal partners have provided funding and technical assistance to retrain displaced coal workers, rehabilitate aging infrastructure, diversify economies and address other economic challenges. The Economic Development Administration (EDA) is collaborating with local partners on several initiatives including a project to support the creation of a regional loan fund for a Community Development Finance Institution (CDFI). EDA also supports development of the comprehensive economic development strategies (CEDs) produced by the state's 11 RPDCs.

Since the flood, EDA has engaged state economic development officials to explore ways they might assist with the establishment of an SRO. In addition, USDA is currently funding several

infrastructure projects and community facilities in the impacted areas and has been assessing the flood damage to these projects to identify potential additional assistance it might give.

The Appalachian Regional Commission is supporting entrepreneur development and job training programs and other economic recovery projects linked to the Partners for Opportunity and Workforce and Economic Revitalization (POWER) initiative which is a federal program that directly assists communities affected by the decline of the coal industry. Finally, the DOL has invested millions of dollars to support the State's effort to assist workers displaced by the decline of coal production and the summer flood.

| Economic Recovery Partner Agencies | |
|--|---|
| Appalachian Regional Commission | Community Development Financial Institutions |
| International Economic Development Council | Legal Aid of West Virginia |
| Local Economic Development Authorities | National Association of Development Organizations |
| Service Corps of Retired Executives | WV Broadband Enhancement Council |
| WV Bureau of Public Health | WV Chamber of Commerce |
| WV Conservation Authority | WV Dept. of Highways |
| WV Dept. of Environmental Protection | WV Div. of Homeland Security & Emergency Management |
| WV Division of Tourism | WV Historic Preservation Office |
| WV Human Resources & Development Foundation | WV Infrastructure Jobs & Development Council |
| WV Army National Guard | WV Office of GIS Coordination |
| WV Regional Contraction Assistance Center | WV Regional Planning & Development Councils |
| WV Small Business Development Centers | West Virginia University Extension Service |
| WV Volunteer Organizations Active in Disasters | |

Table 2: these agencies are in addition to the Federal Partner Agencies listed in Attachment 2

Key Findings

The Economic RSF identified five sector-specific recovery issues:

- Insufficient Economic Diversity
- Lack of Internet Connectivity to Support Business and Industry Growth
- Limited Access to Capital
- Lack of Business Planning and Economic Resiliency
- Opportunity to Improve Infrastructure Capacity
- Support Needed to Create and Sustain Regional Brands

Federal, state, and local partners developed the following goals, objectives, strategies, and actions to address these findings.

Issue: Insufficient Economic Diversity

The 12 counties that were the most heavily impacted by the flood include chronically distressed communities in West Virginia. Many economic challenges, most particularly the downturn in the coal industry, have had a devastating impact on businesses and the workforce throughout the central and southeast regions of the state. The eroding economic conditions have rippled throughout the communities and have threatened the capacity of businesses to rebound and of public institutions to manage overall flood recovery.

Over the last 24 months, the 12 declared counties collectively have a 7.0 percent unemployment rate, which is 1.54 points higher than the national average of 5.46. Two of the counties, Clay and Roane, have reported unemployment rates that are more than double the national average. Per capita income for the 12 counties is \$23,858 or 83.55 percent of the national average. Some of the hardest hit counties reported an even lower per capita income; for instance, Clay County has per capita income of \$16,487 or just 57.7 percent of the national average.

West Virginia has created incentive programs to attract manufacturers and other businesses to locate and remain in rural areas of the state; however, these resources have been strained due to the financial constraints of the State. Before the flood, the State faced a \$250 million budget deficit, and the Legislature appropriated funds from the state's "Rainy Day" account and made numerous spending cuts to balance the 2017 budget.

Communities throughout the impacted regions have traditionally depended on natural resource-based industries, particularly coal, as their primary economic driver and employer. The lack of economic diversification has been problematic, and these communities have been struggling to "reinvent" themselves through the development of new businesses, particularly those in the manufacturing, tourism and agribusiness sectors. Many of the most heavily impacted communities are located primarily in rural regions that are best positioned for developing agribusinesses and tourism opportunities related to the rivers, forests, and other nearby natural resources.

Business recruitment efforts cannot begin to keep up with the loss of jobs due to the downturn in the coal industry. Additional resources must be identified to continue to attract businesses to the impacted areas of the state. Infrastructure and topography constraints inhibit cost effective site development in these regions. These constraints must be addressed before communities can substantially diversify their industry base and become more resilient.

Workforce West Virginia (Workforce WV) has focused resources on retraining dislocated coal industry workers with marketable skills for high-demand jobs. It also plans to use federal funding to hire 250 workers who were displaced due to the flood, to assist with debris removal and other

direct recovery efforts. State workforce officials also want to develop a job training program that would provide displaced workers with construction skills so they might find employment rebuilding homes and businesses that were severely damaged by the June flood.

Tourism is an increasingly important part of the West Virginia economy and one of the most promising industries in diversifying the state's economy. Tourism and related travel contributed \$4.9 billion to the West Virginia economy in 2015 and this growth has been increasing by 5.6 percent per year since 2000. In constant dollars, travel spending has increased by 3.1 percent over the same period.

Growth in tourism will not be realized without attention and investment. Given the changes in demographics, leisure activity participation and visitor expectations, as well as an increasingly competitive environment, the path to growth must be strategic, well-planned, and positioned for success to maximize the state's tourism potential. The overall quality of the visitor experience and of attractions and accommodations is dependent on the ability of the State to secure new investment for marketing, infrastructure, and product development.

Goal: Develop competitive communities through the recruitment of new and expansion of existing business

Objective: Conduct an analysis of impacted areas to develop economic diversification strategies in 2017

Strategy: Enable the most severely impacted areas to implement principles in economic diversification

Action:

- Develop a comprehensive plan to identify targeted economic diversification and community rebuilding development strategies (Short-term)
Coordinating Agencies: RPDCs, local government
Supporting Partners: WVDOC, Appalachian Regional Commission, EDA, USDA, and foundations

Objective: Implement development strategies and projects that promote economic diversification by 2020

Strategy: Develop four sites with at least 50 acres each for development in the flood impacted area by 2020

Action:

- Conduct a land development study that includes all fiscal, engineering, and environmental analysis necessary for effective site development including intended use such as mixed use, industrial, and commercial (Intermediate)
Coordinating Agencies: RPDCs
Supporting Partners: WVDOC, Appalachian Regional Commission, EDA